

**Project No.: NCCL110027**

# **Broadcasting Market Survey**

Commissioned by the National Communications  
Commission

Implemented by Taiwan Economic Research Institute

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## A. Purpose

Technological advancements in information and communications, such as 5G mobile communications, Internet of Things (IoT), and artificial intelligence (AI), have not only led to a thriving digital economy, but have also become critical to the national economy. Subsequently, an increasing range of audio-visual applications, such as augmented reality (AR), virtual reality (VR), over-the-top (OTT) streaming services, as well as a growing number of applications in different sectors have all enhanced their respective industries. Such developments are bringing new lifestyles to people by means of smart retail, smart wearables, smart homes, and smart healthcare, among others. In view of significant shifts in the telecommunications and broadcasting ecologies and business models in Taiwan, it has become vital to compile and analyze data on consumer behaviors in the communications market.

Likewise, in order to gain deeper understanding of changes in the market and ascertain consumer trends, regulators in various advanced countries, such as Ofcom in the UK, Ministry of Internal Affairs and Communications in Japan, OFCA in Hong Kong, KCC in Korea, and IMDA in Singapore, have long compiled data on consumer behaviors on a regular basis. These surveys provide key indicators of the overall national development and offer valuable insights to consumer behaviors and the market status.

Similarly, the National Communications Commission (NCC) has conducted a market survey encompassing telecommunications, broadcasting, broadband usage, and digital convergence each year since 2017, with the exception of the canceled survey in 2021 due to the COVID-19 pandemic. For the 2022 survey, the four categories have been merged into two and interviews have been conducted over the telephone rather than face-to-face. The aim of the survey was to acquire an overview of consumer preferences and the latest advancements in innovative applications by means of a thorough and in-depth investigation on consumer demand. Furthermore, the obtained data on consumer behaviors can function as a basis for the development of digital economy and future policies in Taiwan.

## **B. Methodology**

### **I. Questionnaire Design**

The questionnaires used for this survey were adapted from research undertaken by Ofcom, which has gained extensive experience of surveying consumer behavior and trends in the communications industry, with the original four categories — telecommunications, broadcasting, broadband usage, and digital convergence — merged into two— Telecommunications & Internet and Broadcasting & Convergence.

### **II. Survey Population and Methodology**

#### **i. Survey Population**

The survey was conducted in Taiwan, Penghu, Kinmen, and Matsu with people aged 16 and over (those who were born on and before December 31, 2006).

#### **ii. Sampling Method**

##### **1. Sampling Design**

##### **(1) Landline survey**

The survey was conducted over the telephone with stratified random sampling and Chunghwa Telecom (CHT) White Pages used as the frame. With the nation divided into 22 city / counties or sub-populations, the sample size in a sub-population had to be proportional to the ratio of the sub-population aged 16 and over in the nation to make it representative of the sub-population.

The stratified random sampling was performed in two stages with CHT white pages as the sampling frame. In Phase 1, the probabilities proportional to size (PPS) sampling was employed with the population stratified by city / county. Then, an area code or telephone prefix was selected from the white pages of a city / county through systematic sampling. In Phase 2, random digit dialing (RDD) was employed since the white pages list only telephone numbers that opted to be listed. Thus, the last two digits of the area code determined in Phase 1 were replaced with two other randomly selected digits so that unlisted phone numbers could be selected and interviews could be conducted.



The stratified PPS sampling was used in this survey with the nation stratified into 22 strata by city / county and the planned sample size proportional to the ratio of its population aged 16 and over in the nation. The number of samples was calculated as follows:

$$n_i = \frac{N_i}{N} \times n$$

$N$  is the population aged 16 and over in Taiwan,

$N_i$  is the population aged 16 and over in a city / county

$n_i$  is the number of samples in a city / county,  $n$  is the total number of samples, and

$i$  could be any city / county

The samples were allocated based on the population statistics provided by the Ministry of the Interior in November 2021 with 550 successful samples completed through landline and another 550 through mobile phone in each category. Since the mobile phone numbers contain no area code, it was impossible to link the numbers to areas, 550 interviews were carried out first with those on mobile phones followed by interviews with those on landlines to make up for the shortage in any city or county. A minimum of 30 samples was required in any city / county to make the sample representative of the stratum.

Finally, 1,282 valid samples (including 550 samples conducted through mobile phone) were completed in each category with a sampling error of within  $\pm 3\%$  at a 95% confidence level. The sampling error is calculated as follows:

$$D = \pm z \times \sqrt{\frac{p \times q}{n} \times \frac{N - n}{N - 1}}$$

$$D = \pm 1.96 \times \sqrt{\frac{0.5 \times 0.5}{1,282} \times \frac{20,295,053 - 1,282}{20,295,053 - 1}}$$

$$D = \pm 2.74\%$$

wherein,  $D$  means the error,  $p \times q$  is the maximum standard error,

$Z$  is the confidence level,

$N$  is the number of the population, and  $n$  is the number of samples.

## **(2) Mobile phone survey**

The current status of assigned subscriber's number for mobile telecommunications service provided by NCC every quarter was used as a sampling frame for the mobile phone survey. The currently available 650 mobile phone prefixes<sup>1</sup> (the first five digits) and 100,000 automatically generated mobile phone numbers after each prefix was entered into the mobile phone sampling application meant a total of 65 million mobile phone numbers were available.

When the desired number of mobile phone numbers was entered into the sampling application, mobile phone numbers were selected based on the market shares of the five major telecom operators in Taiwan with the last five digits selected randomly. Then, those phone numbers were screened through a mobile phone number pre-dial validation application to cross out dead phone numbers to make sure selected numbers were active and the mobile phone survey could be conducted accordingly.

### **2. Pilot Test**

Prior to the formal survey, pilot tests were conducted to obtain feedback regarding the questionnaire and design. Fifteen successful samples were completed in each category.

### **3. Formal Survey**

The formal survey was conducted with people aged 16 and over in 22 cities and counties in Taiwan and Fujian (including outlying islands, Kinmen and Matsu).

### **4. Allocation of Samples**

A total of 1,100 samples (including 550 samples conducted via landline and 550 samples conducted via mobile phone) were expected to be completed with a sampling error within  $\pm 3\%$  at a 95% confidence level. In addition, if a city / county had less than 30 samples completed, a minimum of 30 successful samples was required.

Prior to conducting the formal survey, samples were allocated based on the demographic data provided by the Ministry of the Interior at the end of November 2021.

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<sup>1</sup>National Communications Commission has released more than 900 mobile phone prefixes with the last 350 not in use; thus, samples were selected from the first 650 prefixes.

**Table 1 Allocation of Samples**

<b>Geographic Stratum</b>	<b>City / County</b>	<b>No. of People Ages 16 and over</b>	<b>Population Percentage</b>	<b>Planned Allocation of Samples</b>	<b>Reallocation of Samples</b>
Taipei City, New Taipei City, and Keelung	New Taipei City	3,487,310	17.27%	190	190
	Taipei City	2,148,919	10.64%	117	118
	Keelung City	323,041	1.60%	18	30
	Subtotal	5,959,270	29.50%	325	338
Taoyuan, Hsinchu, and Miaoli	Taoyuan County	1,921,519	9.51%	105	104
	Hsinchu City	371,877	1.84%	20	30
	Hsinchu County	478,149	2.37%	26	30
	Miaoli County	468,227	2.32%	25	30
	Subtotal	3,239,772	16.04%	176	194
Taichung, Changhua, and Nantou	Taichung City	2,394,992	11.86%	130	130
	Changhua County	1,084,989	5.37%	59	59
	Nantou County	428,226	2.12%	23	30
	Subtotal	3,908,207	19.35%	213	219
Yunlin, Chiayi, and Tainan	Yunlin County	590,050	2.92%	32	32
	Chiayi City	227,128	1.12%	12	30
	Chiayi County	444,909	2.20%	24	30
	Tainan City	1,623,118	8.04%	88	88
	Subtotal	2,885,205	14.28%	157	180
Kaohsiung, Pingtung, and Penghu	Kaohsiung City	2,394,954	11.86%	130	130
	Pingtung County	713,825	3.53%	39	39
	Penghu County	94,823	0.47%	5	30
	Subtotal	3,203,602	15.86%	174	199
Yilan, Hualien, and Taitung	Yilan County	393,916	1.96%	22	30
	Hualien County	280,798	1.39%	15	30
	Taitung County	187,256	0.93%	10	30
	Subtotal	861,970	4.27%	47	90
Kinmen, Matsu	Kinmen County	127,880	0.63%	7	30

	Lianjiang County	12,168	0.06%	1	30
	Subtotal	140,048	0.69%	8	60
<b>Grand total</b>		<b>20,198,074</b>	<b>100%</b>	<b>1,100</b>	<b>1,280</b>

During the implementation of the survey, the gender and age segments in all the cities and counties were controlled to ensure that the structure of the survey results could be similar to that of the population. In case of any inconsistency between obtained samples and the population, the results were weighted by variables like gender, age, and community. The weighted sample number in each age group could not exceed the original number of samples by  $\pm 60\%$ . The samples were reallocated as shown in Table 2 below.

**Table 2 Samples Reallocated by Area, Sex, Age**

Population Variant	Base		Initial No. of Samples		Final No. of Samples	
	No. of Population	Percentage	No. of Population	Percentage	No. of Population	Percentage
<b>Grand total</b>	<b>20,198,074</b>	<b>100%</b>	<b>1,100</b>	<b>100%</b>	<b>1,280</b>	<b>100%</b>
<b>Sex</b>						
Male	9,928,443	49.2%	541	49.2%	600	49.2%
Female	10,269,631	50.8%	559	50.8%	620	50.8%
<b>Age</b>						
16-25	2,603,004	12.9%	142	12.9%	165	12.9%
26-35	3,141,336	15.6%	171	15.5%	199	15.6%
36-45	3,847,055	19.0%	210	19.1%	244	19.0%
46-55	3,514,740	17.4%	191	17.4%	223	17.4%
56-65	3,442,104	17.0%	187	17.0%	218	17.0%
66 and over	3,649,835	18.1%	199	18.1%	231	18.1%
<b>City / County</b>						
New Taipei City	3,487,310	17.3%	190	17.3%	190	14.8%
Taipei City	2,148,919	10.6%	117	10.6%	118	9.2%
Taoyuan County	1,921,519	9.5%	105	9.5%	104	8.1%
Taichung City	2,394,992	11.9%	130	11.9%	130	10.2%
Tainan City	1,623,118	8.0%	88	8.0%	88	6.9%
Kaohsiung City	2,394,954	11.9%	130	11.9%	130	10.2%

Yilan County	393,916	2.0%	21	2.0%	30	2.3%
Hsinchu County	478,149	2.4%	26	2.4%	30	2.3%
Miaoli County	468,227	2.3%	25	2.3%	30	2.3%
Changhua County	1,084,989	5.4%	59	5.4%	59	4.6%
Nantou County	428,226	2.1%	23	2.1%	30	2.3%
Yunlin County	590,050	2.9%	32	2.9%	32	2.5%
Chiayi County	444,909	2.2%	24	2.2%	30	2.3%
Pingtung County	713,825	3.5%	39	3.5%	39	3.0%
Taitung County	187,256	0.9%	10	0.9%	30	2.3%
Hualien County	280,798	1.4%	15	1.4%	30	2.3%
Penghu County	94,823	0.5%	5	0.5%	30	2.3%
Keelung City	323,041	1.6%	18	1.6%	30	2.3%
Hsinchu City	371,877	1.8%	20	1.8%	30	2.3%
Chiayi City	227,128	1.1%	12	1.1%	30	2.3%
Kinmen County	127,880	0.6%	7	0.6%	30	2.3%
Lianjiang County	12,168	0.1%	1	0.1%	30	2.3%

### iii. Survey Period

The telephone interviews took place from 14:00 to 17:30 in the afternoon and from 18:00 to 21:30 at night between March 14 and April 24, 2022. The evening interviews in remote areas ended at 21:00 when necessary so as to not interrupt the routine of those surveyed. Interviews were also conducted in the afternoon and night on weekends to ensure that people of different properties (e.g. people working at different times or with different lifestyles) could be reached.

**Table 3 Implementation of Survey**

<b>Geographic Stratum</b>	<b>City / County</b>	<b>No. of Population ages 16 and over</b>	<b>Percentage</b>	<b>Communications &amp; Internet Markets</b>	<b>Broadcasting and Convergence Markets</b>
Taipei City, New Taipei City, and Keelung	New Taipei City	3,487,310	17.27%	190	180
	Taipei City	2,148,919	10.64%	118	124
	Keelung City	323,041	1.60%	40	30
	Subtotal	5,959,270	29.50%	338	334
Taoyuan, Hsinchu, and Miaoli	Taoyuan County	1,921,519	9.51%	104	116
	Hsinchu City	371,877	1.84%	30	33
	Hsinchu County	478,149	2.37%	30	31
	Miaoli County	468,227	2.32%	30	32
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Taichung, Changhua, and Nantou	Taichung City	2,394,992	11.86%	130	136
	Changhua County	1,084,989	5.37%	59	61
	Nantou County	428,226	2.12%	30	30
	Subtotal	3,908,207	19.35%	219	227
Yunlin, Chiayi, and Tainan	Yunlin County	590,050	2.92%	32	36
	Chiayi City	227,128	1.12%	30	31
	Chiayi County	444,909	2.20%	30	38
	Tainan City	1,623,118	8.04%	88	85
	Subtotal	2,885,205	14.28%	180	190
Kaohsiung, Pingtung, and Penghu	Kaohsiung City	2,394,954	11.86%	130	138
	Pingtung County	713,825	3.53%	39	45
	Penghu County	94,823	0.47%	30	32
	Subtotal	3,203,602	15.86%	199	215
Yilan, Hualien, and Taitung	Yilan County	393,916	1.96%	30	46
	Hualien County	280,798	1.39%	30	30
	Taitung County	187,256	0.93%	30	30
	Subtotal	861,970	4.27%	90	106
Kinmen, Matsu	Kinmen County	127,880	0.63%	30	32
	Lianjiang County	12,168	0.06%	30	30

	Subtotal	140,048	0.69%	60	62
<b>Grand total</b>		<b>20,198,074</b>	<b>100%</b>	<b>1,280</b>	<b>1,346</b>

**Table 4 Contingency Table for Broadcasting & Convergence Survey before Weighting**

Allocation of Samples	Allocated Number of Samples		Number of Samples before Weighting		Chi-Square Test before Weighting
	No. of People	Percentage	No. of People	Percentage	
<b>Grand total</b>	<b>1,220</b>	<b>100%</b>	<b>1,284</b>	<b>100%</b>	
<b>Location</b>					
Taipei City, New Taipei City, and Keelung	338	27.7%	334	26.0%	The Chi-square test value being 6.7 and p-value=0.307 indicated no significant difference between the sample and distribution of the population at a 5% confidence level.
Taoyuan, Hsinchu, and Miaoli	194	15.9%	212	16.5%	
Taichung, Changhua, and Nantou	219	18.0%	227	17.7%	
Yunlin, Chiayi, and Tainan	180	14.8%	190	14.8%	
Kaohsiung, Pingtung, and Penghu	199	16.3%	215	16.7%	
Yilan, Hualien, and Taitung	90	7.4%	106	8.3%	

Note: Table 4 shows the consistency test in allocation of samples and the numbers of samples before weighting.

### III. Implementation of Survey

#### i. Survey description

Prior to the survey being formally launched, preparations for questionnaires and related affairs were undertaken in February 2022 with a pilot test performed between March 14 and March 30, 2022. After the questionnaires were modified based on the conclusions from the meeting with the agency that commissioned this research, the survey formally began on March 31, 2022. The timeline is outlined as follows.

1. Preparation period: February 14 to March 13, 2022
2. Survey period: Phase 1: March 14 to March 30, 2022  
Phase 2: March 31 to April 24, 2022
3. Review period: April 25 to May 13, 2022

## **ii. Survey assistance tools**

The survey was conducted via telephone with stratified random sampling.

## **iii. Statistical analysis method**

### **1. Data consolidation**

In this research, the survey was conducted via landline and mobile phone with reference to the dual-frame approach adopted by the National Communications Commission (NCC) with weighting.

First, P1 denotes the proportion of landline phone only users in the population, P2 denotes the proportion of dual users, while P3 denotes the proportion of the mobile phone only users, and P4 the proportion of non-users. Without loss of generality, if  $P4=0$ , then  $P1+P2+P3=100\%$ . Theoretically, a landline survey covers P1+P2 only and a mobile phone survey covers P2+P3 only. The proportions of landline and mobile phone users are calculated as follow:

$$P1+P2+P3=1$$

$(P1+P2):P2=1$ : the proportion of mobile phone users in a landline phone survey

$(P2+P3):P2=1$ : the proportion of landline users in a mobile phone survey

The landline and mobile phone survey data sets were combined according to the ratios of P1, P2, and P3 (landline only users, dual users, mobile phone only users) and checked for sample representativeness by basic variables such as city / county, sex, and age. If the samples did not match the composition of the population, they were weighted by sex, age, and city / county to make sure no significant difference existed between the sample and the population.

### **2. Sample representativeness and weighting**

A sample telephone survey was conducted in order to compile data. Since non-sampling errors during the surveys led to deviation from the population, the sample had to be weighted to make reasonable inferences about the population.

The NPAR Chi-square test was used to check the sample by variables of the telephone survey—city / county, sex, and age. If the sample was determined to



significantly differ from the population, it was ranked by city, sex and age with the latest population data published by Ministry of the Interior as the population until no significant difference existed between the sample and the population.

$$w_{i..}^{(1)} = \frac{N_{i..}}{N} \times \frac{n}{n_{i..}}$$

$$w_{.j.}^{(2)} = \frac{N_{.j.}}{N} \times \frac{n}{n_{.j.}^{(1)}}, \text{ wherein } n_{.j.}^{(1)} = \sum_i \sum_k w_{i..}^{(1)} n_{ijk}$$

$$w_{..k}^{(3)} = \frac{N_{..k}}{N} \times \frac{n}{n_{..k}^{(2)}}, \text{ wherein } n_{..k}^{(2)} = \sum_i \sum_j w_{.j.}^{(2)} n_{ijk} \dots$$

The adjustment weights can be obtained through the iterative calculations above:

$$W_{raking} = \sum_{i=1}^k \frac{N_i}{N} \sum_{j=1}^{n_i} \frac{w_{ij} y_{ij}}{n_i}$$

$$\text{wherein } y_{ij} = \begin{cases} 1, \text{ Sample } j \text{ in Stratum } i \text{ has property} \\ 0, \text{ Sample } j \text{ in Stratum } i \text{ does not have property} \end{cases}$$

$w_{ij}$  = Adjustment weight of Sample  $j$  in Stratum  $i$ ,  $n_{ij}$  =

No. of successful Samples in Stratum  $i$ ,

$k$  = stratum,  $i$ =sex,  $i=1,2$  \-  $j$ =age,  $j=1,2,3,\dots$ ,  $k$ =city / county,  $k=1,2,3,\dots,22$

All the data in the results were multiplied by the adjustment weight.  $N$ ,  $N_i$  and  $n_i$  represent the number of the population and the number of weighted sample population in cross group  $i$ , and  $N$  and  $n$  represent the number of the total population and the number of the total weighted sample population. By doing so, the sampling distribution was completely the same as the population distribution after weighting. The last weight was gained by multiplying all the adjustment weights.

### 3. Frequency

How people understand and rate each of the aspects was presented through the frequencies and data presented in percentage in all of the items.

### 4. Cross analysis and Chi-square test

A cross analysis table was established with the basic data in “all issues” to realize whether a difference existed between the respondents with different backgrounds in all issues. Pearson’s Chi-square test was used in the cross table. The Chi-square test value

(W) is defined as below:

$$W = \sum_{i=1}^r \sum_{j=1}^c \frac{(O_{ij} - E_{ij})^2}{E_{ij}} \sim \chi^2((r-1)(c-1)), \text{ wherein}$$

$O_{ij}$  is the observed frequency from Row j, Column i, and

$E_{ij}$  is the expected frequency from Row j, Column i.

A less than 5% p-value in the Chi-square test indicates a significant statistic difference between the two variables at a 5% confidence level.

## 5. Analysis of variance (ANOVA)

The total variation can be broken down into the variation between groups and the variation within groups. Analysis of variance is used to calculate the ratio of variation between groups to variation within groups. If the variation between groups is significantly greater than the variation within groups, significant differences among group means exist between two or more groups. If the variation between groups does not differ highly from the variation within groups, no significant differences exist among groups. The ANOVA F-test calculations are as below.

$$F = \frac{MS_b}{MS_w} = \frac{SS_b / k - 1}{SS_w / n - k}$$

, where n represents the number of samples and k represents the number of groups,

$$SS_b = n \sum_{i=1}^k (\bar{X}_i - \bar{X})^2$$

is the total sum of squared deviations of group means from grand mean, and

$$SS_w = \sum_{i=1}^k \sum_{j=1}^{n_i} (X_{ij} - \bar{X}_i)^2$$

is the total sum of the squared deviations within groups.

## iv. Sample structure

This survey was conducted in Taiwan, Penghu, Kinmen and Matsu. Due to the small adult (aged 16 and over) population of 140,048 in Kinmen and Matsu compared to other areas, the samples of Kinmen and Matsu were separated from those of Taiwan proper (including Penghu) so that the number of samples of Kinmen and Matsu would

not be too few to be representative when weighted and analyzed with samples of other 20 cities and counties.

As of May 13, 2022, the communications and convergence survey for this research had been completed and reviewed by the research team, with 1,346<sup>2</sup> valid questionnaires completed as valid samples. The sample structure is shown in Table 5.

**Table 5 Contingency Table for Broadcasting & Convergence Survey Samples**

Population Variants	Population		No. of Samples before Weighting		No. of Samples after Weighting		Chi-Square Test before Weighting	Chi-Square Test after Weighting
	No. of Population	Percentage	No. of Population	Percentage	No. of Population	Percentage		
Grand total	20,058,026	100%	1,284	100%	1,284	100%		
<b>Sex</b>							The Chi-square test value being 0.792 and p-value=0.373 indicated no significant difference existed between the sample and the population at a 5% confidence level.	The Chi-square test value being 0.000 and p-value=1.000 indicated no significant difference between the sample and the population at a 5% confidence level.
Male	9,858,028	49.1%	647	50.4%	631	49.2%		
Female	10,199,998	50.9%	637	49.6%	653	50.8%		
<b>Age</b>							The Chi-square test value being 29.734 and p-value=0.000 indicated no significant difference between the sample and the population at a 5% confidence level.	The Chi-square test value being 0.000 and p-value=1.000 indicated no significant difference between the sample and the population at a 5% confidence level.
16 -25	2,583,629	12.9%	103	8.0%	165	12.9%		
26 -35	3,116,634	15.5%	196	15.3%	200	15.5%		
36 -45	3,824,727	19.1%	253	19.7%	245	19.1%		
46 -55	3,490,240	17.4%	237	18.5%	224	17.4%		
56 -65	3,414,362	17.0%	231	18.0%	219	17.1%		
66 and over	3,628,434	18.1%	264	20.6%	232	18.1%		
<b>By City / County</b>							The Chi-square test value being 225.555 and p-value=0.000 indicated no significant difference between the sample and the population at a 5% confidence level.	The Chi-square test value being 0.000 and p-value=1.000 indicated no significant difference between the sample and the population at a 5% confidence level.
New Taipei City	3,487,310	17.3%	180	14.0%	223	17.4%		
Taipei City	2,148,919	10.6%	124	9.7%	138	10.7%		
Taoyuan County	1,921,519	9.5%	116	9.0%	123	9.6%		
Taichung City	2,394,992	11.9%	136	10.6%	153	11.9%		
Tainan City	1,623,118	8.0%	85	6.6%	104	8.1%		
Kaohsiung City	2,394,954	11.9%	138	10.7%	153	11.9%		
Yilan County	393,916	2.0%	46	3.6%	25	2.0%		
Hsinchu County	478,149	2.4%	31	2.4%	31	2.4%		
Miaoli County	468,227	2.3%	32	2.5%	30	2.3%		
Changhua County	1,084,989	5.4%	61	4.8%	69	5.4%		

<sup>2</sup>This survey was conducted in Taiwan, Penghu, Kinmen and Matsu. Since the population in Kinmen and Matsu was too small for analysis, their samples were separated from those of Taiwan proper (including Penghu) before weighting by city / county. Also, samples were classified according to household registration. (Namely, an interviewee who was interviewed in Taiwan with his domicile registered in Kinmen or Matsu would be classified as a valid sample of Kinmen and Matsu; while an interviewee who was interviewed in Kinmen or Matsu with his domicile registered in Taiwan proper was processed as a valid sample of Taiwan proper.)

Nantou County	428,226	2.1%	30	2.3%	27	2.1%
Yunlin County	590,050	2.9%	36	2.8%	38	2.9%
Chiayi County	444,909	2.2%	38	3.0%	28	2.2%
Pingtung County	713,825	3.5%	45	3.5%	46	3.6%
Taitung County	187,256	0.9%	30	2.3%	12	0.9%
Hualien County	280,798	1.4%	30	2.3%	18	1.4%
Penghu County	94,823	0.5%	32	2.5%	6	0.5%
Keelung City	323,041	1.6%	30	2.3%	21	1.6%
Hsinchu City	371,877	1.8%	33	2.6%	24	1.9%
Chiayi City	227,128	1.1%	31	2.4%	15	1.1%

Note: The data shown in Table 5 are the March 2022 demographic data by village (neighborhood) provided by the Ministry of the Interior at its open data website.

The number of samples of a city / county was weighted based on the household registration, with the consistency between numbers of samples before and after weighting tested.

The changes in sample size of each age group after weighting are all in accordance with the requirement that “the rate of change in sample size of any age group must not exceed  $\pm 60\%$  or more after weighting,” as shown in Table 6.

**Table 6 Expansion Ratios of Sample Sizes by Age Group after Weighting**

No. of Population	Before Weighting		After Weighting		Expansion Ratios by Age Group (Compared with the Initial Number of Samples)
	No. of Population	Percentage	No. of Population	Percentage	
Grand total	1,284	100%	1,284	100%	
<b>Age</b>					
16-25	103	8%	165	12.90%	1.6
26-35	196	15.30%	200	15.50%	1.02
36-45	253	19.70%	245	19.10%	0.97
46-55	237	18.50%	224	17.40%	0.94
56-65	231	18%	219	17.10%	0.95
66 and over	264	20.60%	232	18.10%	0.88

## IV. Research Limitations

In order to truly ascertain how Taiwanese people use communications, a survey on the development and trends in the communications industry was conducted through telephone interviews with people aged 16 and over (those born on and before December 31, 2006) in Taiwan, Penghu, Kinmen, and Matsu, at the request of NCC. However, the following study limitations were encountered when actually performing the survey:

## **i. Sample Frame Limitations**

According to NCC standard requirements, at least 1,100 successful samples in Taiwan, Penghu, Kinmen, and Matsu were required with the sample proportional to the population of each city / county.

The dual frame (landline and cell phone) survey was adopted for this research, with the CHT white pages and the current status of assigned subscriber's number for mobile telecommunications service published by NCC as the frames. However, due to the fact that the sample structure might be affected by user habits, such as most landline only users being ages 66 and over and most mobile phone only users being young people, the sample sizes were merged by sex, age, and education level and then weighted by the ratios of landline only users, mobile phone only users and dual users with a view to matching the ratios in the population while expanding the sample coverage, according to the way proposed by Hung Yong-tai et al. (2017)<sup>3</sup> on how to merge landline and mobile phone samples.

## **ii. Sample Recovery Restrictions**

The questionnaire consisted of fifty-nine questions; 73,629 calls were made with 80.1% of them unanswered and 19.9% answered. Among the answered calls, 8.6% were rejected, 9.9% were interrupted for some reasons, with 2.2%, an extremely low rate, successfully completed.

Even so, the interviewers in this survey were urged earlier in the year to achieve the required number of samples by area, sex and age; hence, none of the weighted numbers in all age groups exceeded the original numbers of samples by  $\pm 60\%$ .

## **iii. Sample Inference Restrictions**

After weighing, the sample size of young people, such as ages 16-25, was 1.6 times greater; the sample size of ages 26-35 was 1.02 times greater; the sample size of ages 36-45 was 0.96 times greater; the sample size of middle-aged people (46-55), was 0.94 times greater; the sample size of ages 56-65 was 0.95 times greater; and the sample size of ages 66 and over was 0.88 times greater. Non-probability sampling was employed in this research; therefore, care should be taken when using the resulting

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<sup>3</sup>Hung Yong-tai, Yu Cheng-hua, Kao Shi-yuan, 2017. *Challenges and Responses in Local Public Opinion Exploration in the Digital Age* (P. 18).  
<http://www.tcef.org.tw/layout/exfile/file/researchcenter/methodology/report/106report.pdf#page=31&zooom=100,92,508>

statistical inferences.

# C. Broadcasting & Convergence Market

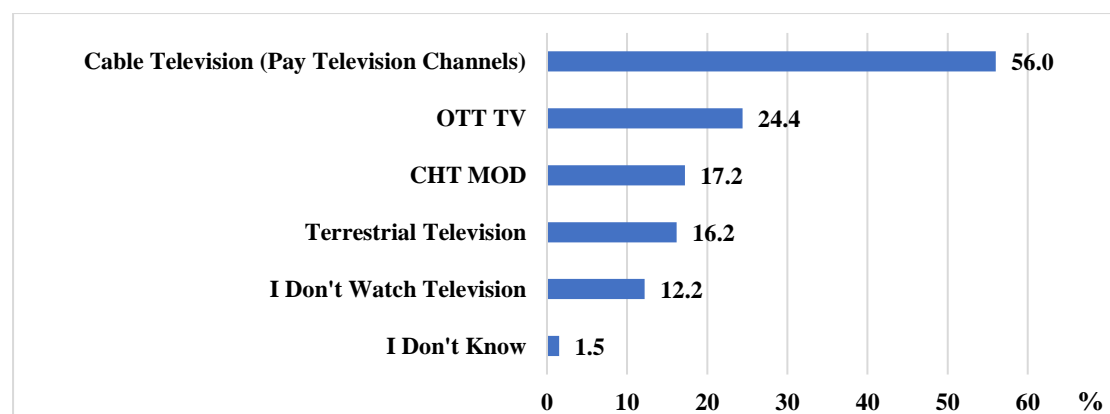
## Survey Results

### I. Television Sources and Platforms

#### i. Home Television System or Platform and Main Source of Viewing Television Q3Q4

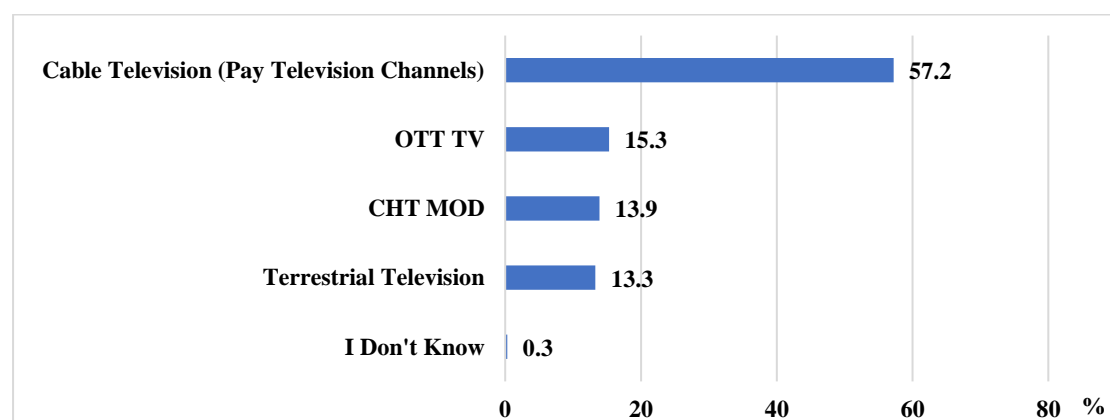
##### 1. Overall analysis

When asked about their home television system or platform, most of the respondents replied cable TV (56%), followed by OTT TV (24.4%), terrestrial television (16.2%) (Figure 1). When it comes to the main source of viewing television, cable TV topped the list at 57.2%, followed by OTT TV (15.3%), CHT MOD (13.9%), and terrestrial television (13.3%) (Figure 2).



Base: N=1,284, multiple answers allowed

**Figure1 Home Television System or Platform**



Base: N=1,107, single-choice (Those who watch videos)

**Figure 2 Main Sources Television**

## **2. Comparative analysis**

### **(1) Analysis on regional differences**

The cross analysis suggests that when asked about their home television system or platform, most respondents across all areas replied cable TV, with the highest ratio seen in Kaohsiung, Pingtung, and Penghu (61.5%) and the lowest in Yilan, Hualien, and Taitung (46.8%). The Chi-square test<sup>4</sup> suggests that the main source of viewing television varied greatly with area and that cable TV was the main source of viewing television in all areas; but OTT TV answers accounted for a higher ratio in Taoyuan, Hsinchu, and Miaoli (20.4%) than in other areas and represented a lower ratio in Yilan, Hualien, and Taitung (10.3%); terrestrial television answers accounted for a higher ratio in Yilan, Hualien, and Taitung (23.5%) than in other areas.

### **(2) Analysis on basic differences**

The Chi-square test suggests that the main source of viewing television varied greatly with age.

When broken down by sex, most male (52.8%) and female (59%) respondents replied cable TV when asked about their home television system and 54.9% of male respondents and 59.4% of female respondents replied cable TV when asked about the main source of viewing television.

When broken down by ages, cable TV was the most common home television system or platform in all ages, with the highest ratio seen in ages 56-65 (70.3%) and the lowest in ages 26-35 (41.8%). When it comes to the main source of viewing television, cable TV was the most common answer, with the highest ratio seen in ages 56-65 (70.8%) and the lowest in ages 26-35 (40.3%); while OTT TV answers constituted the largest ratio in ages 26-35 and the lowest in ages 66 and over (0.3%).

When broken down by marital status, most of the surveyed in all marital statuses replied cable TV when asked about their home television system or platform, with the highest ratio seen in the widowed (69.1%) and the lowest in the divorced / separated (52.9%); when it comes to the main source of viewing television, OTT TV answers made up a larger ratio in the divorced / separated (24.7%) than in the rest.

### **(3) Analysis on differences in social and economic status**

The Chi-square test suggests that the main source of viewing television varied greatly with education level and monthly income.

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<sup>4</sup>The Chi-square tests used in the survey analysis in Chapter 3 were independence tests for variables.



When broken down by education level, most of the surveyed in all education levels replied cable TV when asked about their home television system or platform, with the ratio decreasing with education level and the highest ratio seen in those with elementary education and below (76.9%) and the lowest in master's and higher degree holders (39%). When it comes to the main source of television viewing, the ratio of OTT TV answers increased with education level, with the highest ratio seen in master's and higher degree holders (34.7%) and 0% in those with elementary education and below.

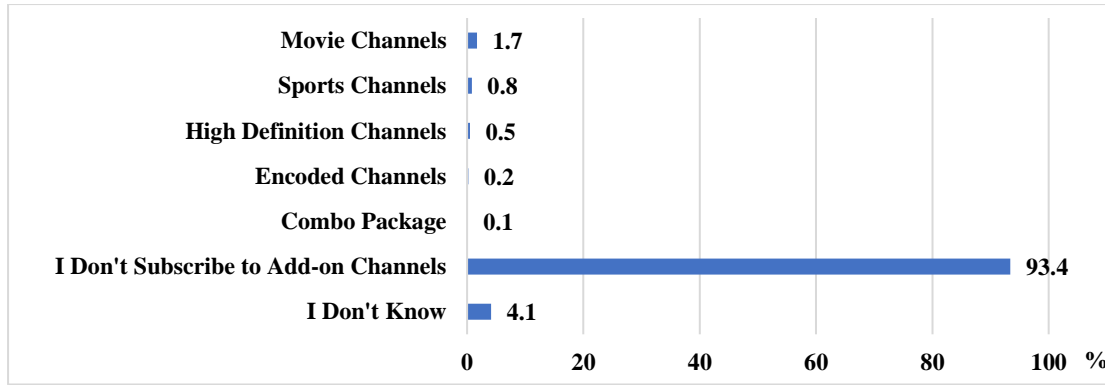
When broken down by monthly income, most of the surveyed in all income levels replied cable TV when asked about their home television system or platform, with the highest ratio seen in those earning NT30,000-39,999 (60.4%) and the lowest in those earning NT60,000 and more (52.2%). When it comes to the main source of television viewing, the ratio of OTT TV answers generally increased with income, with the highest ratio seen in those earning more than NT60,000 (24.8%) and the lowest in those earning less than NT10,000 (1.9%).

## **II. Cable TV**

### **i. Cable TV Subscriptions Q6 Q7**

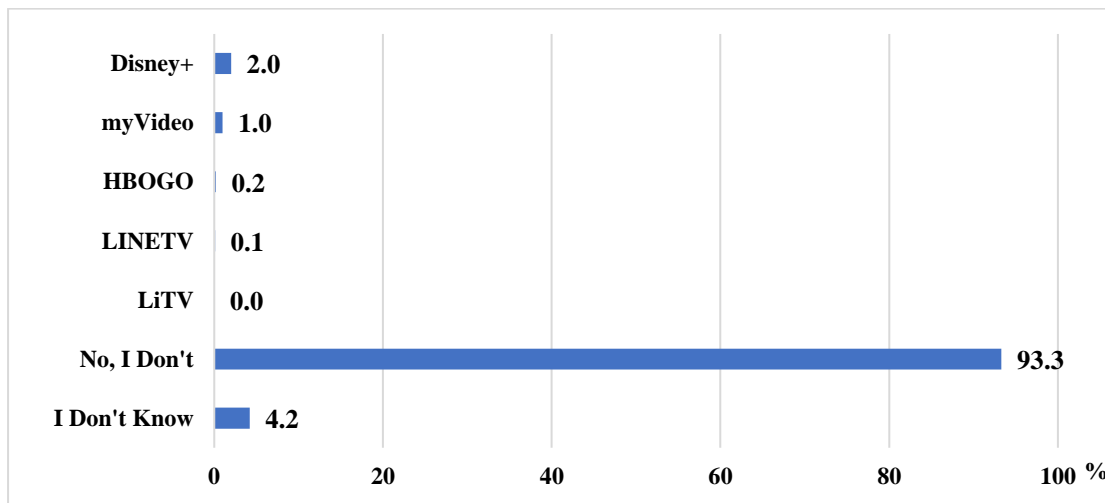
#### **1. Overall analysis**

When asked about add-on channels subscribed on cable TV, the majority (93.4%) of the surveyed who subscribe to cable TV replied they only subscribe to the basic channels. Among those who subscribe to add-on channels, movie channels was the most common answer at 1.7%, followed by sports channels (0.8%), high definition channels (0.5%), encoded channels (0.2%), and channel packages (0.1%) (Figure 3). When it comes to OTT TV subscribed on cable TV, the majority of the surveyed replied negatively. Among those replying affirmatively, Disney+ (2%) was the most common, followed by myVideo (1%), HBOGO (0.2%), LINE TV (0.1%), and LiTV (0.02%) (Figure 4).



Base: N=719, multiple answers allowed (Those who subscribe to cable TV)

**Figure 3 Add-on Channels on Cable TV Subscriptions**



Base: N=719, multiple answers allowed (Those who subscribe to cable TV)

**Figure 4 OTT TV on Cable TV Subscriptions**

## 2. Comparative analysis

### (1) Analysis on regional differences

The cross analysis suggests that the majority of the surveyed who subscribe to cable TV across all areas said they only subscribe to the basic channels, with the highest ratio seen in Kaohsiung, Pingtung, and Penghu (97.1%) and the lowest in Taoyuan, Hsinchu, and Miaoli (87.4%). Among those who subscribe to add-on channels, movie channels answers represented a higher ratio in Taoyuan, Hsinchu, and Miaoli (4.8%) than in other areas, and sports channels (3.1%) and high definition channels (3.1%) answers accounted for higher ratios in Yilan, Hualien, and Taitung (both at 3.1%) than in other areas. When it comes to OTT TV subscribed on cable TV, the majority of the surveyed in all areas replied negatively, with the highest ratio seen in Taipei City, New

Taipei City, and Keelung and Yilan, Hualien, and Taitung, both at 95.2%, and the lowest in Taichung, Changhua, and Nantou (90.5%).

## **(2) Analysis on basic differences**

When broken down by sex, most of the male (94.4%) and female (92.6%) respondents said they subscribe to the basic channels only. When it comes to OTT TV subscription on cable TV, the majority of the male (94.3%) and female (92.5%) respondents replied negatively.

When broken down by age, most of the surveyed across all ages said they only subscribe to the basic channels, with the highest ratio seen in ages 26-35 (95.1%) and the lowest in ages 66 and over (91.6%). Among those who subscribe to add-on channels, movie channels answers accounted for the largest share in across ages, with the highest shown in ages 46-55 (3.8%) and the lowest in ages 56-65 (0.4%), except in ages 16-25. When it comes to OTT TV subscribed on cable TV, the majority of the surveyed in all ages replied negatively, with the highest ratio seen in ages 56-65 (97%) and the lowest in ages 66 and over (89.3%). Among those who replied affirmatively, Disney+ was the most common answer among all ages, with the highest ratio shown in ages 46-55 (4.6%) and the lowest in ages 36-45 (0.5%), except in ages 16-25, where myVideo answers represented the largest share (1.8%).

When broken down by marital status, most of the surveyed across all marital statuses said they only subscribe to the basic channels, with the highest ratio seen in the unmarried (95.1%) and the lowest in the widowed (63.5%). When it comes to OTT TV subscribed on cable TV, the majority of the surveyed in all marital statuses replied negatively, with the highest ratio seen in the divorced / separated (96.4%) and the lowest in the widowed (63.5%).

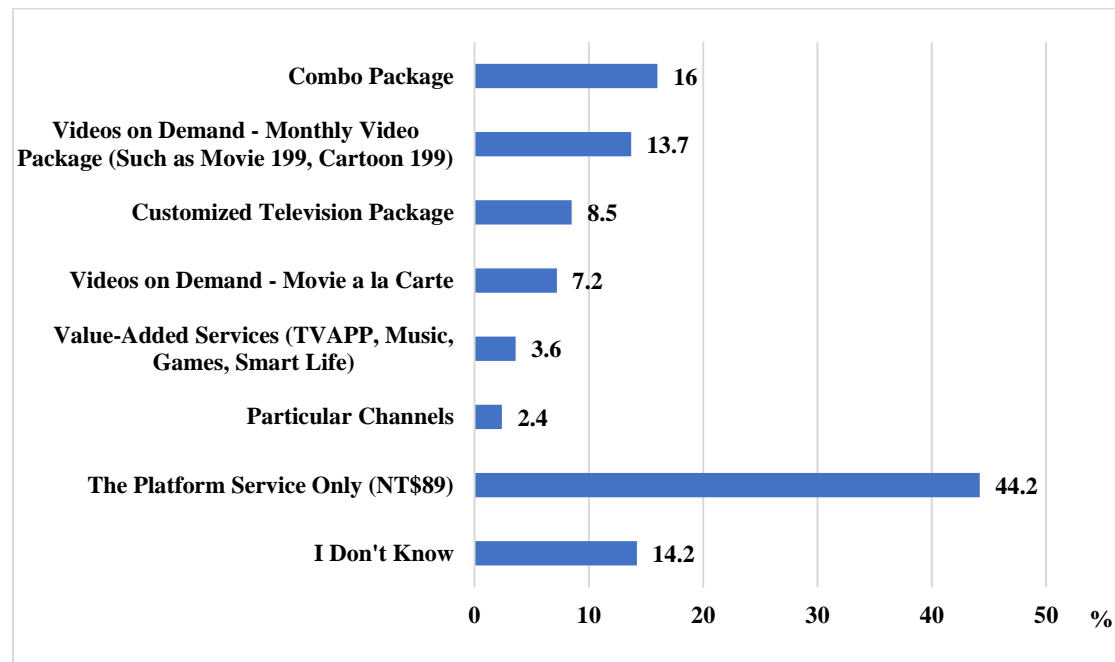
## **III. CHT MOD**

### **i. MOD Subscriptions Q9 Q10**

#### **1. Overall analysis**

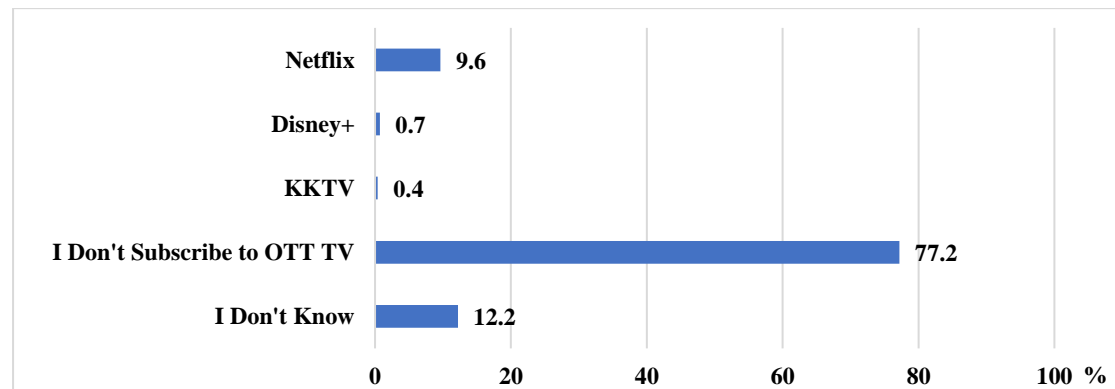
Most of the surveyed who subscribe to CHT MOD only subscribe to the basic platform services at a ratio of 44.2%. Among those who subscribe to additional services, “Combo Package” answers accounted for the largest share (16%), followed by “Videos on Demand - Monthly Video Package (Such as Movie 199, Cartoon 199)” answers (13.7%) (Figure 5). When it comes to OTT TV subscribed on CHT MOD, most of the surveyed replied negatively at a ratio of 77.2%. Among those who replied affirmatively,

Netflix was the most common answer (9.6%), followed by Disney+ (0.7%) (Figure 6).



Base: N=221, multiple answers allowed (Those who subscribe to CHT MOD at home)

**Figure 5 Additional Services on CHT MOD Subscriptions**



Base: N=221, multiple answers allowed (Those who subscribe to CHT MOD at home)

**Figure 6 OTT TV on CHT MOD Subscriptions**

## 2. Comparative analysis

### (1) Analysis on regional differences

The cross analysis suggests that most of the surveyed who subscribe to CHT MOD in all areas only subscribe to the basic platform services, with the highest ratio seen in Yilan, Hualien, and Taitung (58%) and the lowest in Taipei City, New Taipei City, and Keelung (34.7%). When it comes to OTT TV subscribed on CHT MOD, most of the surveyed replied negatively, with the highest ratio seen in Kaohsiung, Pingtung,

and Penghu (87.1%) and the lowest in Taipei City, New Taipei City, and Keelung (70.9%). Among those who replied affirmatively, Netflix was the most common answer, with the highest ratio seen in Taipei City, New Taipei City, and Keelung (15.7%) and the lowest in Taichung, Changhua, and Nantou (13.1%).

## **(2) Analysis on basic differences**

When broken down by sex, most of the male (43.8%) and female (44.6%) respondents who subscribe to CHT MOD replied they only subscribe to the basic platform services. When it comes to OTT TV subscribed on cable TV, the majority of the male (79.4%) and female (75%) respondents replied negatively.

When broken down by age, most of the surveyed in all ages said they only subscribe to the basic platform services, with the highest ratio seen in ages 26-35 (65.1%) and the lowest in ages 56-65 (34.4%). Among those who subscribe to additional services, “Videos on Demand - Monthly Video Package (Such as Movie 199, Cartoon 199)” answers topped the list across all ages, with the highest shown in ages 16-25 (20.8%) and the lowest in ages 66 and over (6.9%), except in ages 46-55 (27.3%) and ages 56-65 (18.6%), where “Combo Package” was the most popular answer. When it comes to OTT TV subscribed on CHT MOD, the majority of the surveyed across all ages replied negatively, with the highest ratio seen in ages 46-55 (83.3%) and the lowest in ages 66 and over (69.2%). Among those who replied affirmatively, Netflix was the most common answer among all ages, with the highest ratio shown in ages 16-25 (16.6%) and the lowest in ages 66 and over (0%).

When broken down by marital status, most of the surveyed across all marital statuses said they only subscribe to the basic platform services at ratios of 49.8% and 40.7% among the unmarried and married respectively. The divorced / separated and the widowed were excluded from the analysis due to the small sample size<sup>5</sup>. When it comes to OTT TV subscribed on cable TV, the majority of the surveyed across all marital statuses replied negatively at ratios of 79.4% and 76.3 among the unmarried and married respectively. Again, the divorced / separated and the widowed were not included in the analysis due to the small sample size.

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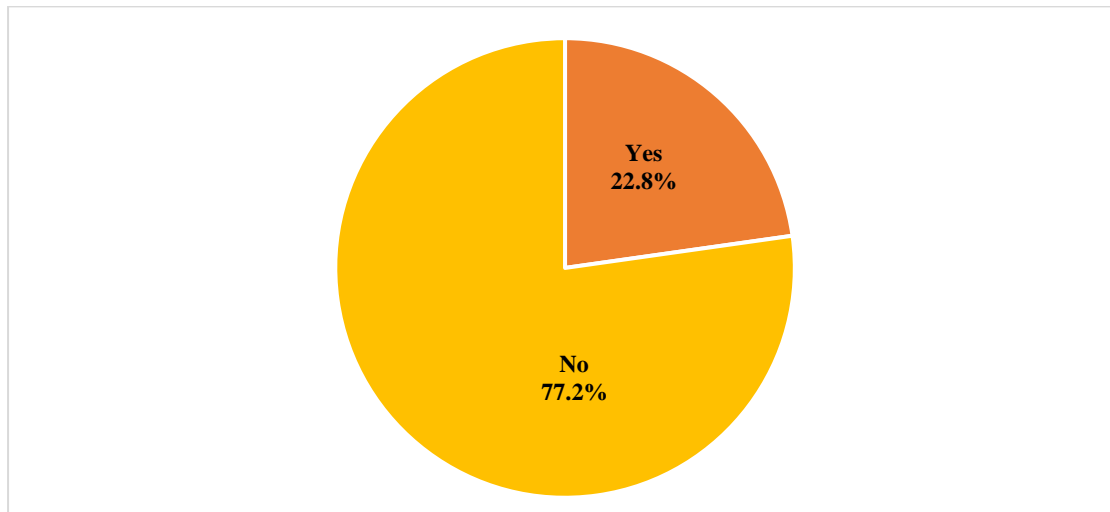
<sup>5</sup>Survey samples were categorized based on the basic information. A sample size that is too small reduces the power of the study; thus a sample size equal to or less than five was considered inadequate to be analyzed.

## IV. OTT TV

### i. OTT TV Viewership Q12 Q14 Q15 Q16

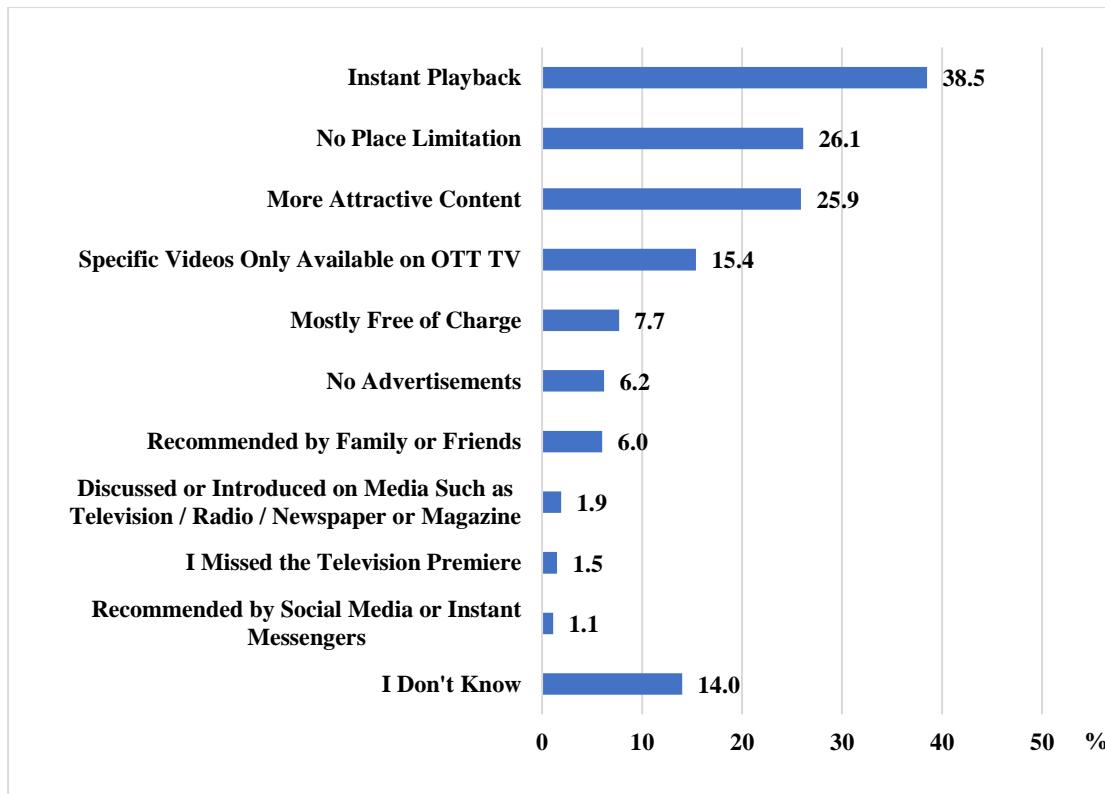
#### 1. Overall analysis

When asked whether they had watched OTT TV (including pay and free OTT TV services), 22.8% of the interviewees replied affirmatively (Figure 7), with “Instant Playback” (38.5%) as the predominant reason, followed by “No Place Limitations” (26.1%), and “More Attractive Content” (25.9%) (Figure 8).



Base: N=1,284, single-choice

**Figure 7 OTT TV Viewers**



Base: N=292, multiple answers allowed (Those who have watched OTT TV)

**Figure 8 Reasons for Watching OTT TV**

On average, the respondents spend 12.39 hours (Table 7) on OTT TV per week and are willing to pay NT270 for OTT TV services a month (Table 8).

**Table 7 Time Spent on OTT TV per week (by Area)**

Unit: Hour

Area	Average Time
Taipei City, New Taipei City, and Keelung	13.03
Taoyuan, Hsinchu, and Miaoli	14.46
Taichung, Changhua, and Nantou	12.61
Yunlin, Chiayi, and Tainan	7.51
Kaohsiung, Pingtung, and Penghu	12.53
Yilan, Hualien, and Taitung	15.28
<b>Total Average</b>	<b>12.39</b>

Base: N=292(Those who watch OTT TV)

Source: Results from this research

**Table 8 Fees Willing to Pay for OTT TV per Month (by Area)**

Unit: NT Dollar

Area	Average Amount
Taipei City, New Taipei City, and Keelung	286
Taoyuan, Hsinchu, and Miaoli	259
Taichung, Changhua, and Nantou	310
Yunlin, Chiayi, and Tainan	152
Kaohsiung, Pingtung, and Penghu	372
Yilan, Hualien, and Taitung	157
<b>Total Average</b>	<b>270</b>

Base: N=292 (Those who watch OTT TV)

Source: Results from this research

## 2. Comparative analysis

### (1) Analysis on regional differences

The Chi-square test suggests that whether one has watched OTT TV varied greatly with area.

The cross analysis suggests that most of the surveyed in all areas have not watched OTT TV. Those who have accounted for the highest ratio in Taipei City, New Taipei City, and Keelung (27.6%) and the lowest in Kaohsiung, Pingtung, and Penghu (16.5%). When it comes to the reasons for watching OTT TV, “Instant Playback” was the most common answer, with the highest ratio seen in Taichung, Changhua, and Nantou (48.6%) and the lowest in Taipei City, New Taipei City, and Keelung (35.8%), except in Yunlin, Chiayi, and Tainan (23.3%) and Yilan, Hualien, and Taitung (41.7%), where “More Attractive Content” was the most common. When it comes to the time spent on OTT TV per week, on average, those interviewed in Yilan, Hualien, and Taitung spend the most time (15.28 hours) per week and those in Yunlin, Chiayi, and Tainan spend the least (7.51 hours) (Table 8); as for the amount of money spent on OTT TV, those in Kaohsiung, Pingtung, and Penghu pay on average the most (NT372) and those in Yunlin, Chiayi, and Tainan the least (NT152) (Table 9).

### (2) Analysis on basic differences

The Chi-square test suggests that whether one had watched OTT TV varied greatly with age. The one-way ANOVA suggests that the amount of money one is willing to pay for OTT TV varied greatly with marital status.



When broken down by sex, a slightly higher ratio of male respondents (23.4%) said they had watched OTT TV than their female counterparts (22.2%). The predominant reason for watching OTT TV was “Instant Playback”. On average, male respondents spend 13.52 hours on OTT TV per week, longer than their female counterparts, 11.25 hours, and male respondents are willing to pay on average NT284 for OTT TV per month, higher than the amount NT256 by female respondents.

When broken down by age, the ratio of those who had watched OTT TV decreased with age, with the highest ratio seen in ages 16-25 (37.6%) and the lowest in ages 66 and over (2.3%). The predominant reason for watching OTT TV was “Instant Playback” in all ages, with the highest rate shown in ages 16-25 (53%) and the lowest in ages 26-35 (33.3%), except in ages 46-55, where the predominant reason was “More Attractive Content” (43.3). And, ages 56-65 spend the most time, 17.18 hours, on OTT TV per week and ages 36-45 the least, 9.59 hours. Ages 46-55 are willing to pay the most, NT362, for OTT TV and ages 36-45 the least, NT201, with ages 66 and over excluded from the analysis due to the small sample size.

When broken down by marital status, those who had watched OTT TV constituted the highest ratio in the unmarried (30.9%) and the lowest (2%) in the widowed. The predominant reason for watching OTT TV was “Instant Playback” among the unmarried (44.3%) and the married (35.5%), and it was “Mostly Free of Charge” among the divorced / separated (44.6%). On average, the married spend the most time, 12.97 hours, on OTT TV and are willing to pay the most money, NT318, for it; while the divorced / separated spend the least time, 5.03 hours, and are willing to pay the least, NT41.

### **(3) Analysis on differences in social and economic status**

The Chi-square test suggests that whether one had watched OTT TV varied greatly with education level, profession, and monthly income. The one-way ANOVA suggests that the time spent on OTT TV per week varied greatly with profession.

When broken down by education level, the ratio of those who had watched OTT TV increased with education level, with the lowest ratio seen in those with elementary education and below (1.1%) and the highest in master’s and higher degree holders (42.9%).

When broken down by profession, those who had not watched OTT TV accounted for the majority in all professions except in the art / entertainment and recreation

industries (62%). Yet, those who had watched OTT TV represented higher ratios in the publication, audio-video production, mass communication, information and communications industries (49.9%), the education industry (46.1%), the public administration and national defense/mandatory social security industries (45.8%) than in the rest. On average, those in the wholesale and retail industries spend the most time, 18.75 hours, on OTT TV, with those in the education industry the least, 4.89 hours; respondents in the following professions spend more time on OTT TV than average: housekeepers (16.03 hours), the professional / scientific and technical services (17.53 hours), the publication, audio-video production, mass communication, information and communications industries (15.47 hours), the construction engineering industry (13.53 hours), other services industry (13.38 hours), the finance and insurance industries (12.9 hours), the hospitality industry (12.89 hours), and job seekers and those waiting to return to work (12.76 hours).

When broken down by monthly income, those who had watched OTT TV constituted the highest ratio in those earning more than NT60,000 (32.4%) and the least in those earning less than NT10,000 (1.4%).

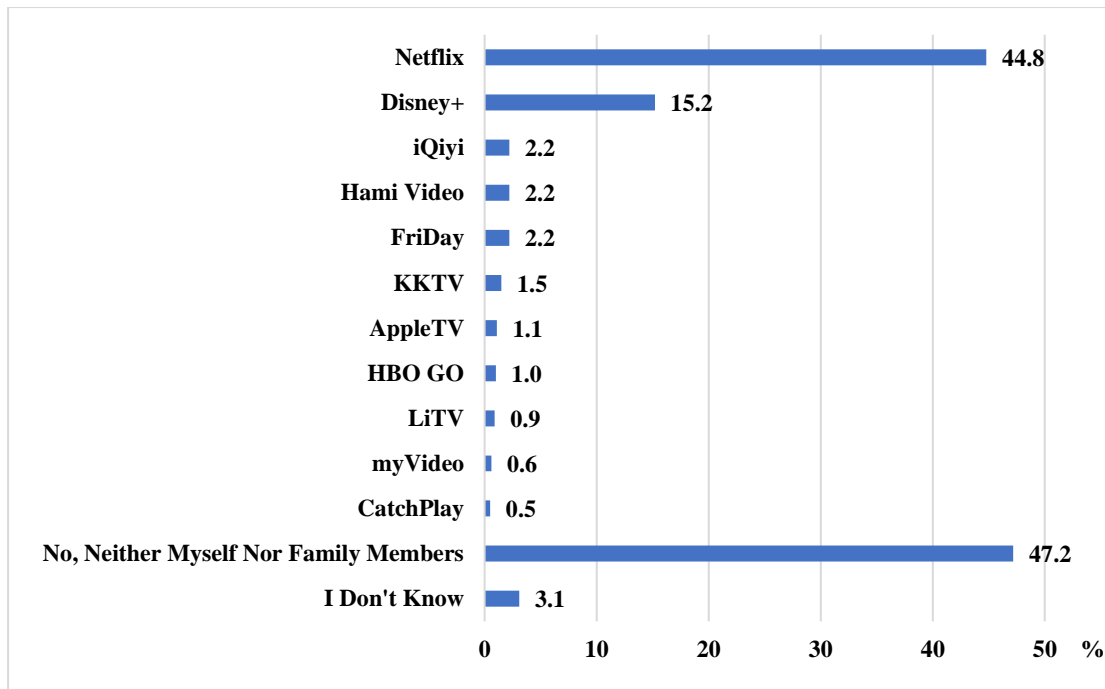
## **ii. OTT TV Subscriptions Q17**

### **1. Overall analysis**

Most of the respondents (47.2%) do not subscribe to OTT TV at home. Among those who do, Netflix (44.8%) was the most subscribed to channel, followed by Disney+ (15.2%) (Figure 9)<sup>6</sup>.

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<sup>6</sup>IQiyi agent, Ott Entertainment, has terminated its operations in Taiwan since October 15, 2020.



Base: N=292, multiple answers allowed (Those who watch OTT TV)

**Figure 9 OTT TV Subscriptions at Home**

## 2. Comparative analysis

### (1) Analysis on regional differences

The cross analysis suggests that most of the respondents in all areas do not subscribe to OTT TV, except in Taipei City, New Taipei City, and Keelung, where most (60%) of the respondents subscribe to Netflix.

### (2) Analysis on basic differences

When broken down by sex, most of male respondents (49.3%) subscribe to Netflix; while over half of female respondents do not subscribe to OTT TV.

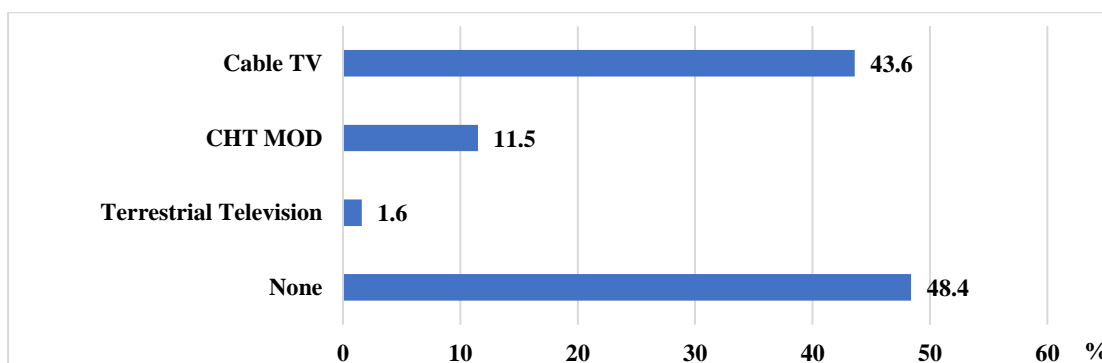
When broken down by age, Netflix subscribers accounted for the highest ratio among ages 16-25 (48.5%) and ages 26-35 (59.3%) and Disney+ subscribers constituted a larger share in ages 16-25 than in the rest at a ratio of 32%. Non-OTT TV subscribers accounted for the majority of the remaining.

When broken down by marital status, most of the surveyed across all marital statuses do not subscribe to OTT TV, except in the unmarried, where Netflix subscribers accounted for the majority (50.7%).

### iii. Reasons for Moving to OTT TV Q19 Q20

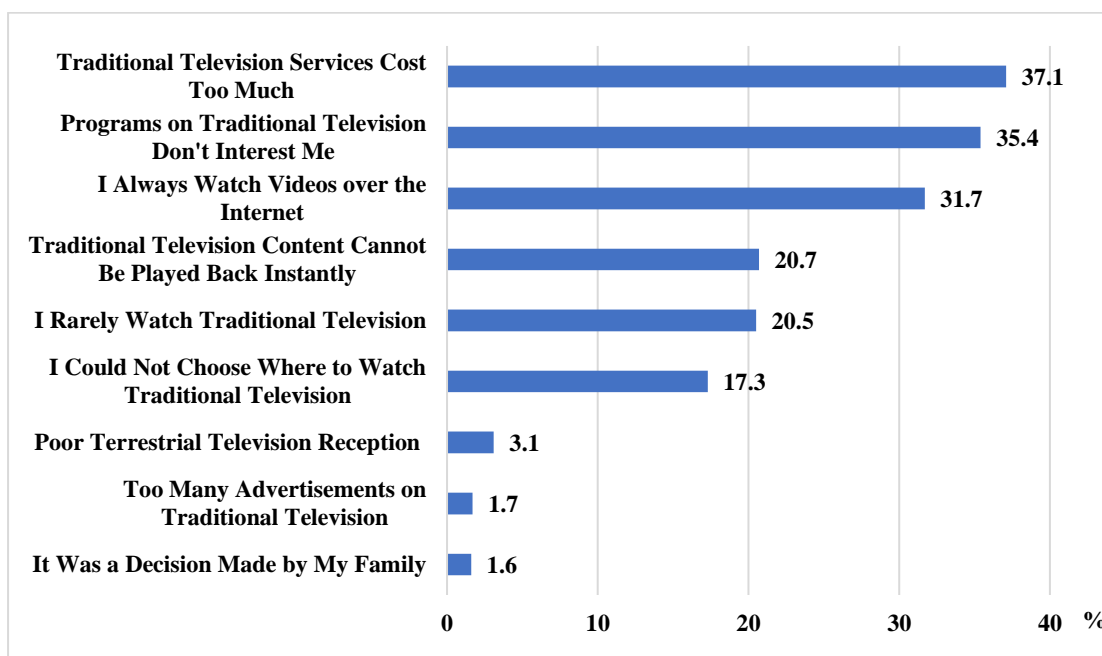
#### 1. Overall analysis

When asked about the television system or platform prior to OTT TV, most respondents replied “None” at a ratio of 48.4%. Among the remaining, “Cable TV” was the most common answer (43.6%), followed by “CHT MOD” (11.5%) and “Terrestrial Television” (1.6%) (Figure 10). When it comes to the reasons for moving to OTT TV, the predominant reason was “Traditional Television Services Cost Too Much” (37.1%), followed by “Traditional Television Programs Do No Interest Me” (35.4%) and “I Always Watch Videos over the Internet” (31.7%) (Figure 11).



Base: N=113, multiple answers allowed (Those who watch OTT TV only at home)

**Figure 10** Television System or Platform prior to OTT TV



Base: N=59, multiple answers allowed (Those who switched to OTT TV from other television system or platform)

**Figure 11** Reasons for Moving to OTT TV

## **2. Comparative analysis**

### **(1) Analysis on regional differences**

The cross analysis suggests that when asked about the television system or platform prior to OTT TV, most of the respondents across all areas replied “None,” with the highest ratio seen in Taipei City, New Taipei City, and Keelung (55.2%), except in Taoyuan, Hsinchu, and Miaoli, where “Terrestrial Television” answers accounted for the majority (65.3%). Respondents in Yilan, Hualien, and Taitung were excluded from the analysis due to the small sample size. When it comes to the reasons for moving to OTT TV, the predominant reason was “Traditional Television Services Cost Too Much” in Taipei City, New Taipei City, and Keelung (46%) and Yunlin, Chiayi, and Tainan (48.1%), “I Always Watch Videos over the Internet” in Taoyuan, Hsinchu, and Miaoli (63.1%), “Traditional Television Programs Do Not Interest Me” in Taichung, Changhua, and Nantou (53.8%) and Kaohsiung, Pingtung, and Penghu (48.6%), and “Poor Terrestrial Television Reception” answers represented a higher ratio in Taichung, Changhua, and Nantou (18.9%) than in other areas, with Yilan, Hualien, and Taitung excluded from the analysis due to the small sample size.

### **(2) Analysis on basic differences**

When broken down by sex, the majority of both male (49.7%) and female (49.7%) respondents said there was no television system or platform prior to OTT TV. When it comes to the reasons for moving to OTT TV, the predominant reason was “Traditional Television Services Cost Too Much” among males (44.1%) and “Programs on Traditional Television Do No Interest Me” among females (38.9%).

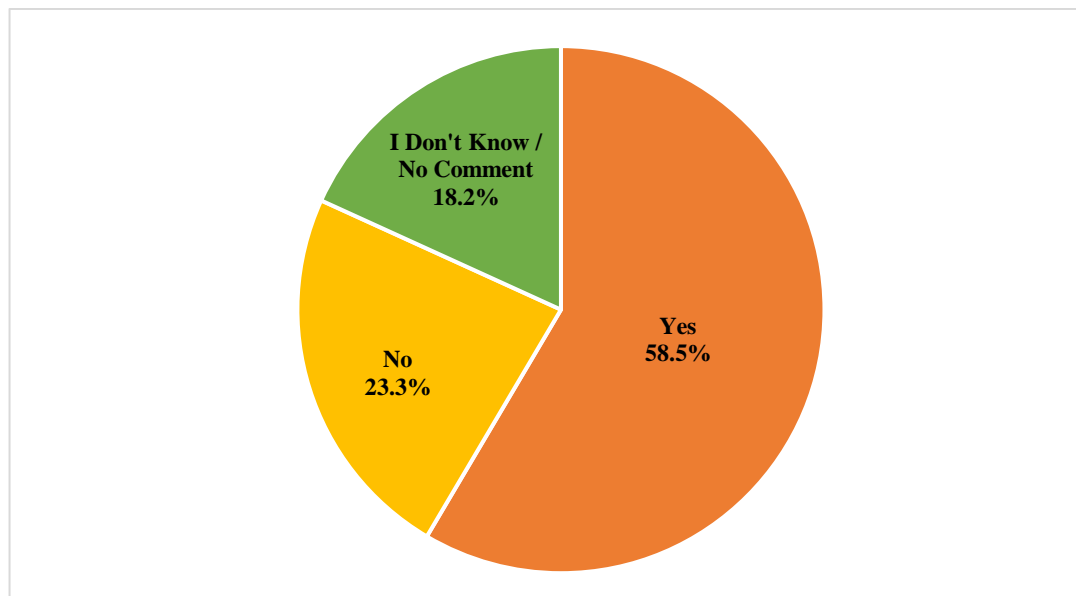
When broken down by age, most respondents in all ages said there was no television system or platform prior to OTT TV, with the highest ratio shown in ages 16-25 (61.8%), except in ages 26-35 (47.3%) and 46-55 (45.7%), where “Cable TV” was most common. The samples of ages 66 and over were too small to be analyzed. When it comes to the reasons for moving to OTT TV, the predominant reason was “I Always Watch Videos over the Internet” among ages 16-25 (47.8%), “Programs on Traditional Television Do No Interest Me” among 26-35 (49.9%), “Traditional Television Services Cost Too Much” among ages 36-45 (41.5%) and ages 46-55 (44.9%), with samples of ages 56-65 and ages 66 and over too being too few to be analyzed.

When broken down by marital status, most respondents in the married (49.4%) said there was no television system or platform prior to OTT TV and most respondents in the married (47.7%) replied that the television system prior to OTT TV was cable TV, with the divorced / separated excluded from the analysis due to the small sample size. When it comes to the reasons for moving to OTT TV, the predominant reason was “I Always Watch Videos over the Internet” (31.9%) among the unmarried and “Programs on Traditional Television Do No Interest Me” (41.7%) among the married, with the divorced / separated excluded from the analysis due to the small sample size.

#### **iv. Opinions on OTT TV Management Q21 Q22**

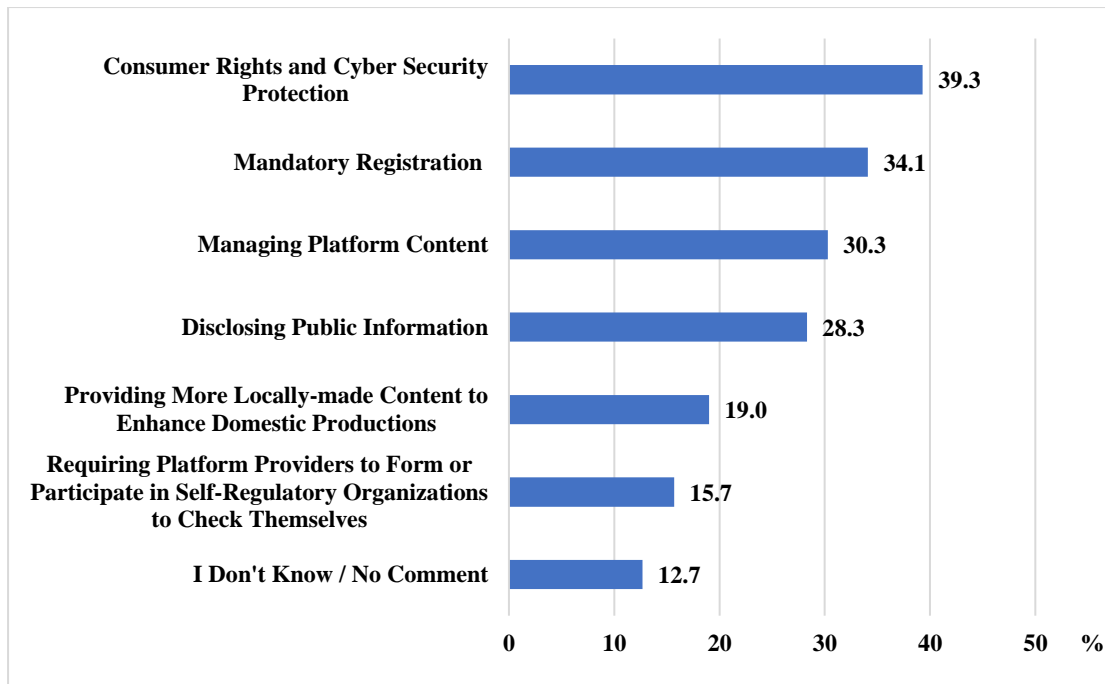
##### **1. Overall analysis**

When asked about whether OTT TV should be properly regulated, nearly 60% (58.5%) replied affirmatively, 23.3% replied negatively, and 18.2% replied “I Don’t Know / No Comment” (Figure 12). As for what regulatory measures should be taken by the government, “Consumer Rights and Cyber Security Protection” (39.3%) accounted for the majority, followed by “Mandatory Registration” (34.1%), and “Managing Platform Content (e.g. Child and Youth Protection and Content Rating)” (30.3%) (Figure 13).



Base: N=292, single-choice (Those who watch OTT TV)

**Figure 12      Asked Whether OTT TV Should be Regulated**



Base: N=171, multiple answers allowed (Those who think OTT TV should be properly regulated)

**Figure 13 Asked What Should be done by the Government**

## 2. Comparative analysis

### (1) Analysis on regional differences

The cross analysis suggests that when asked about whether OTT TV should be properly regulated, most respondents in all areas replied affirmatively, with the highest ratio seen in Taichung, Changhua, and Nantou (66.2%) and the lowest in Kaohsiung, Pingtung, and Penghu (51.8%). As for what should be done by the government, “Consumer Rights and Cyber Security Protection” accounted for the majority of replies in Taipei City, New Taipei City, and Keelung (44.9%) and Taoyuan, Hsinchu, and Miaoli (45%), “Disclosing Public Information (e.g. Service Terms and Personal Information Protection Statement)” was the most popular reply in Taichung, Changhua, and Nantou (33.8%) and Kaohsiung, Pingtung, and Penghu (38.7%), “Mandatory Registration” topped the list in Yunlin, Chiayi, and Tainan (50.7%), and “Providing More Locally-made Content to Enhance Domestic Productions” was the most common answer in Yilan, Hualien, and Taitung (44.2%).

## **(2) Analysis on basic differences**

The Chi-square test suggests that the opinion on whether OTT TV should be properly regulated varied greatly with age.

When broken down by sex, over half of male and female respondents replied OTT TV should be properly regulated, with a higher ratio in females (61.9%) than males (55.2%). As for what regulatory measures should be taken by the government, “Disclosing Public Information” (42.3%) and “Consumer Rights and Cyber Security Protection” (38.8%) accounted for the majority of replies in males and females respectively.

When broken down by age, most respondents in all ages replied OTT TV should be properly regulated, with the highest ratio seen in ages 16-25 (37.6%), where OTT TV users represented the highest ratio as mentioned above. As for what regulatory measures should be taken by the government, “Consumer Rights And Cyber Security Protection” made up the majority of replies in ages 16-25 (53.2%), ages 46-55 (37.2%), and ages 56-65 (26.5%), “Managing Platform Content” represented the largest share in ages 26-35 (38.6%), and “Disclosing Public Information” was the most popular in ages 36-45 (43.6%), with ages 66 and over excluded from the analysis due to the small sample size.

When broken down by marital status, most of the unmarried and the married said OTT TV should be properly regulated, with the highest ratio seen in the unmarried (64.3%) and the lowest in the divorced / separated (47.9%), with the widowed excluded from the analysis due to the small sample size. As for what regulatory measures should be taken by the government, “Consumer Rights and Cyber Security Protection” made up the majority of replies in the unmarried (42.2%) and the married (37.4%), with the divorced / separated excluded from the analysis due to the small sample size.

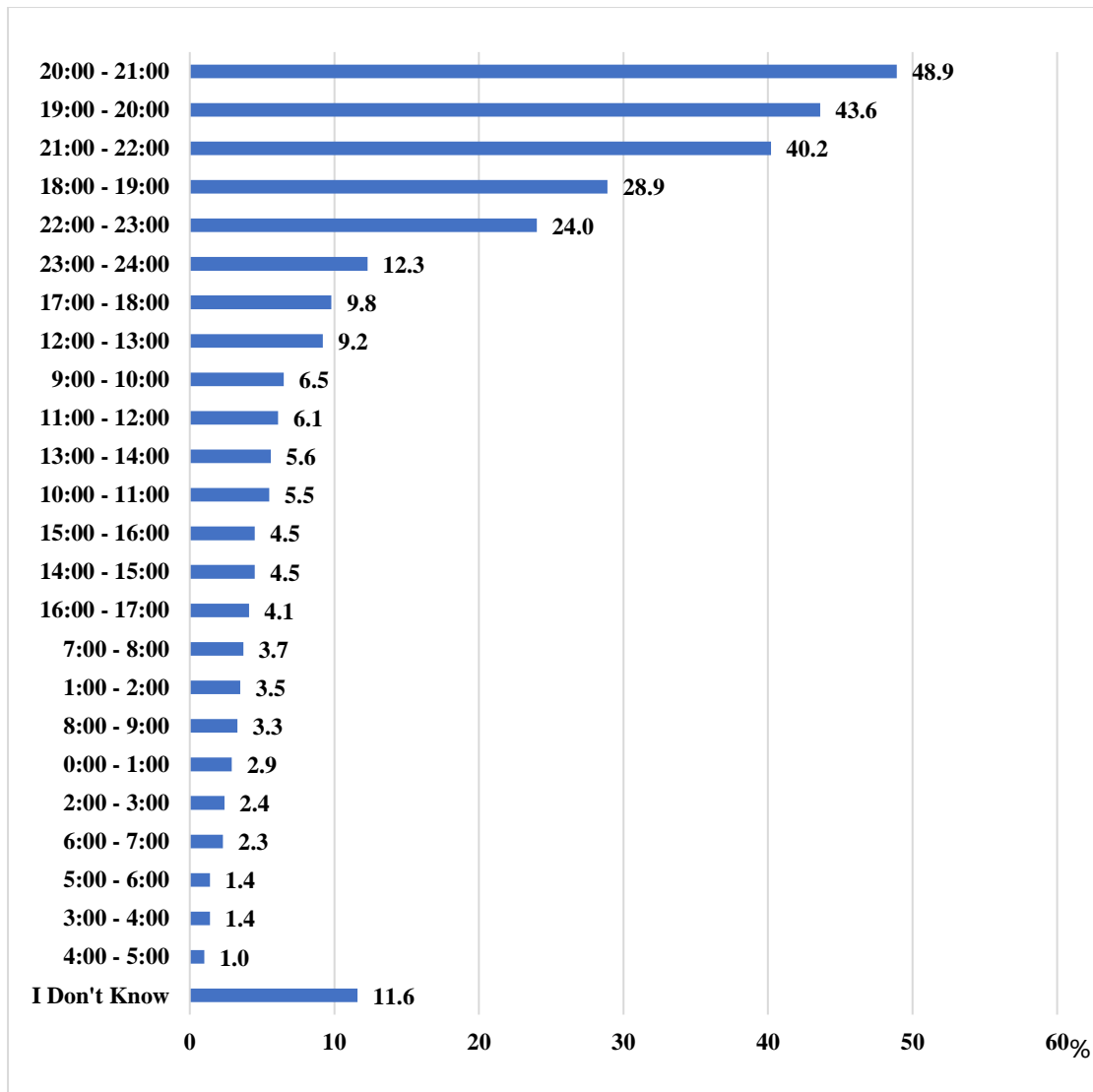
## **V. Viewing Habits and Perception of Television**

### **i. Television Viewing Time Slots Q23**

#### **1. Overall analysis**

Most of those surveyed said they watch television (including terrestrial television, cable TV, CHT MOD, and OTT TV) during 20:00-21:00 (48.9%), followed by 19:00-20:00 (43.6%), and 21:00-22:00 (40.2%), indicating that 19:00-22:00 is prime time for television in Taiwan (Figure 14).





Base: N=1,107, multiple answers allowed (Those who watch videos)

**Figure 14 Most Popular Time Slots for Viewing Television**

## **2. Comparative analysis**

### **(1) Analysis on regional differences**

The cross analysis suggests that most of those surveyed in all areas watch television during 20:00-21:00 (48.9%), with the highest ratio in Taoyuan, Hsinchu, and Miaoli (56.2%) and the lowest in Taichung, Changhua, and Nantou (43.3%).

### **(2) Analysis on basic differences**

When broken down by sex, most of male (50%) and female (47.9%) respondents watched television during 20:00-21:00.

When broken down by age, most of those surveyed across all ages watch television during 20:00-21:00, with the highest ratio in ages 56-65 (58.8%) and the lowest in ages

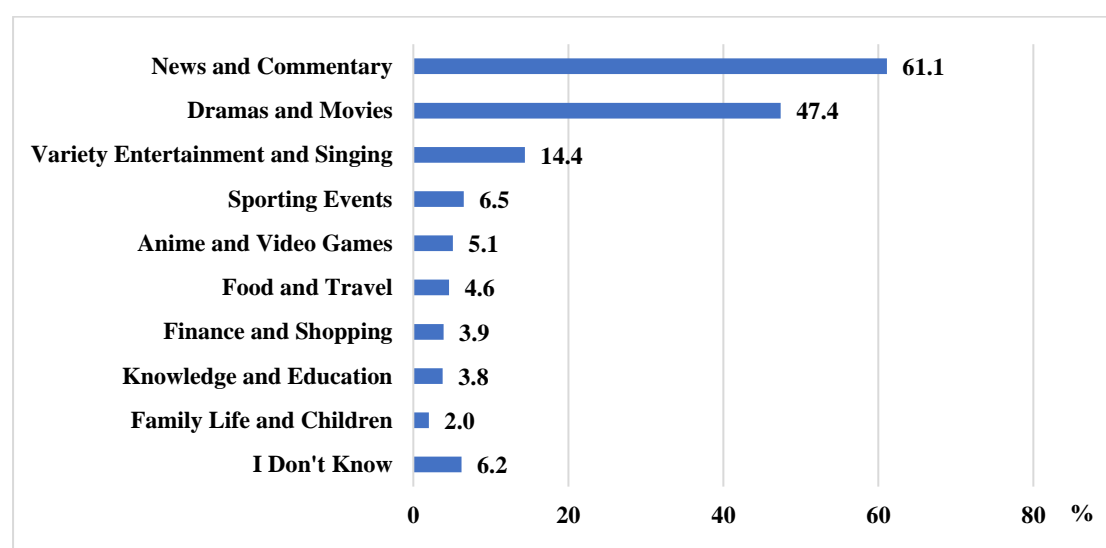
26-35 (40.4%), with a higher ratio of ages 66 and over (17.2%) watching television during 12:00-13:00 than the rest.

When broken down by marital status, most of the unmarried (49%) and the married (50%) watch television during 20:00-21:00; most of the divorced / separated (54.6%) during 21:00-22:00; most of the widowed (40.6%) during 19:00-20:00, with 04:00-05:00 answers accounting for a higher ratio in the widowed (22.4%) than in the rest.

## ii. Most Watched Television Programs Q24

### 1. Overall analysis

When asked about the television programs viewed, most (61.1%) of the respondents said news and commentary, followed by dramas and movies (47.4%), and variety entertainment and singing (14.4%) (Figure 15).



Base: N=1,107, multiple answers allowed (Those who watch television)

**Figure 15 Most Watched Television Programs (Top 10)**

### 2. Comparative analysis

#### (1) Analysis on regional differences

The cross analysis suggests that when asked about the television programs viewed, most (61.1%) of the respondents in all areas said news and commentary, with the highest ratio seen in Yilan, Hualien, and Taitung (68.4%) and the lowest in Taipei City, New Taipei City, and Keelung (58.3%).

## (2) Analysis on basic differences

When broken down by sex, the majority of both male (62.8%) and female (59.4%) respondents watch news and commentary.

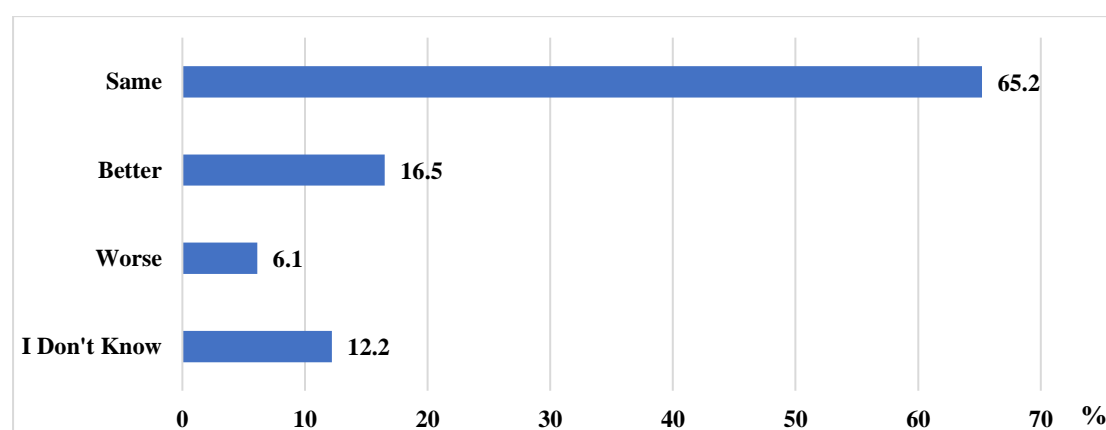
When broken down by age, most of the surveyed across all ages watch news and commentary, with the highest ratio in ages 56-65 (74.3%) and the lowest in ages 36-45 (59.4%), except in ages 16-25 (50%) and ages 26-35 (57%), where dramas and movies was the most common answer.

When broken down by marital status, most of the surveyed in all marital statuses watch news and commentary, with the highest ratio in the married (67.6%) and the lowest in the unmarried (51%).

### iii. Television Program Quality Q25Q26 Q27

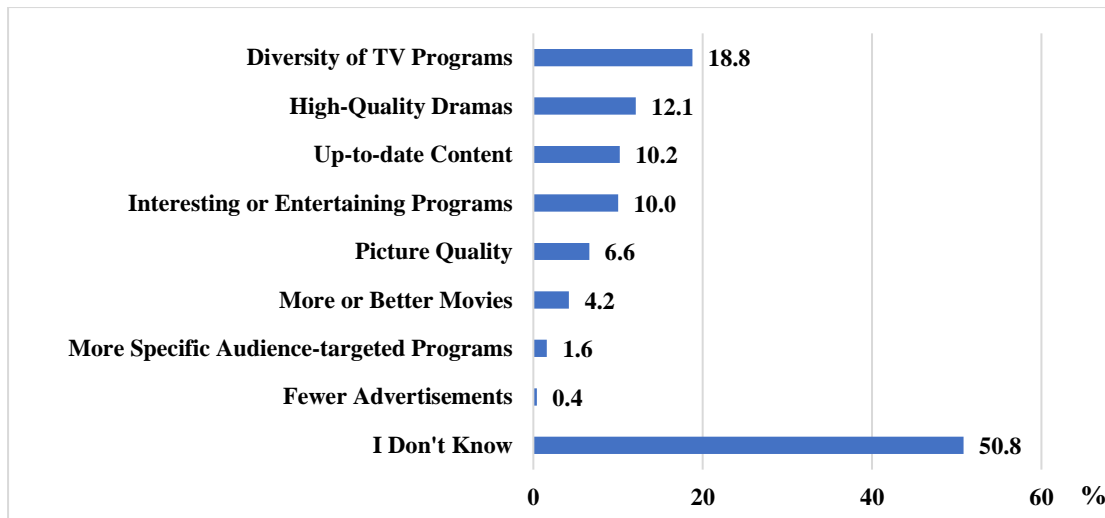
#### 1. Overall analysis

When asked about the quality of television programs over the past 12 months, 65.2% of the respondents said the quality remained the same, 16.5% thought the quality had improved, while 6.1% replied it had deteriorated (Figure 16). Those who thought that quality of television programs had improved contributed the improvement to the diversity of TV programs (18.8%), followed by high-quality dramas (12.1%), and up-to-date content (10.2%) (Figure 17). Those who said the quality of television programs had deteriorated contributed that to overly frequent reruns (54.9%), lack of variety (17.1%), and too many political talk shows (9.1%) (Figure 18).



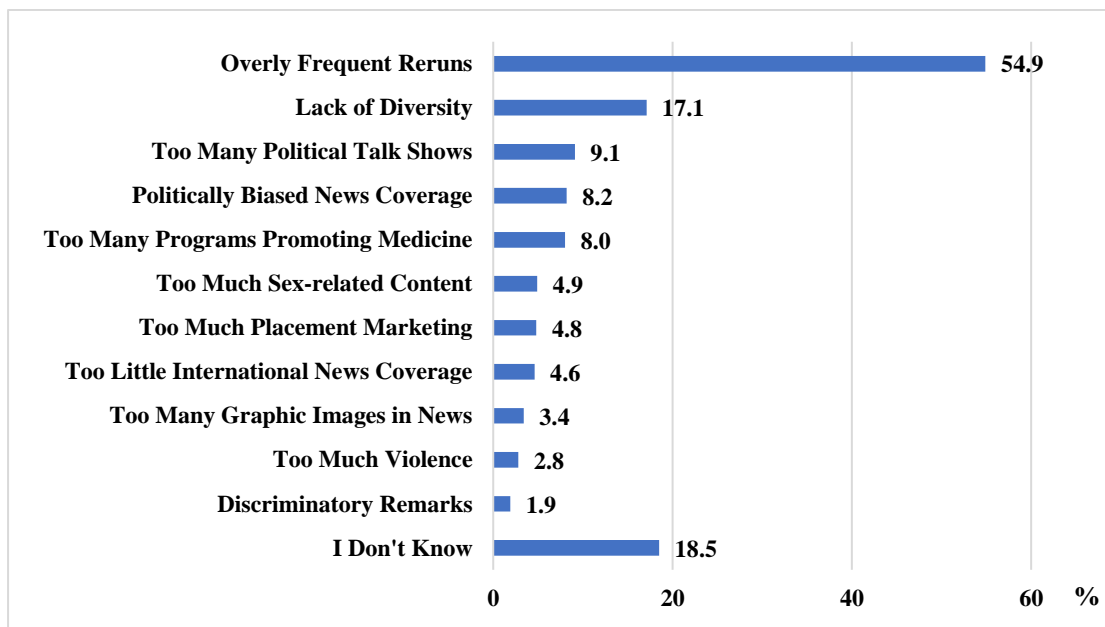
Base: N=994, multiple answers allowed (Those who watch terrestrial television, cable TV, or CHT MOD at home)

**Figure 16 Quality of Television Programs over the past 12 Months**



Base: N=164, multiple answers allowed (Those who thought that quality of television programs had improved in the past 12 months)

**Figure 17 Improvement in Quality of TV Programs over the past 12 Months**



Base: N=60, multiple answers allowed (Those who thought that quality of television programs had deteriorated in the past 12 months)

**Figure 18 Deterioration in Quality of TV Programs over the Past 12 Months**

## 2. Comparative analysis

### (1) Analysis on regional differences

The Chi-square test suggests that one's perception on the quality of TV programs during the past 12 months varied greatly with area.

The cross analysis suggests that when asked the quality of TV programs over the past 12 months, most of the respondents across all areas said the quality remained the same, with the highest ratio in Taoyuan, Hsinchu, and Miaoli (70.3%) and the lowest in Yunlin, Chiayi, and Tainan (52.7%). Those who answered the quality had become worse accounted for the highest ratio in Yunlin, Chiayi, and Tainan (11.6%) and the lowest in Taichung, Changhua, and Nantou (2.7%). Among those who thought that quality of television programs had improved, 30.3% in Taipei City, New Taipei City, and Keelung and 17% in Yunlin, Chiayi, and Tainan, and 26.2% of Yilan, Hualien, and Taitung contributed the improvement to diversity of TV programs; 21.8% in Taichung, Changhua, and Nantou contributed that to up-to-date content. Among those who thought that quality of television programs had deteriorated, most respondents in all areas contributed that to overly frequent reruns, with the highest ratio seen in Taoyuan, Hsinchu, and Miaoli (78.6%) and the lowest in Taipei City, New Taipei City respondents, and Keelung (48.9%). Taichung, Changhua, and Nantou, Kaohsiung, Pingtung, and Penghu, and Yilan, Hualien, and Taitung were excluded from the analysis due to the small sample size.

## **(2) Analysis on basic differences**

The Chi-square test suggests that one's perception on the quality of TV programs over the past 12 months varied greatly with sex and age.

When broken down by sex, most of the male and female respondents answered the quality of TV programs had remained the same during the last 12 months, with (18.4%) a higher ratio of females saying it had improved than males (14.4%) and also a slightly higher ratio of females (7.8%) saying it had deteriorated than males (4.2%). As for the improvement, both male (23.1%) and females (15.6%) contributed that to diversity of TV programs. When it comes to the deterioration, both genders contributed that to overly frequent reruns, with females (64.2%) showing a higher ratio than males (36.7%).

When broken down by age, most of the respondents across all ages said the quality of TV programs had remained the same during the past 12 months, with the highest percentage shown in ages 16-25 (78.8%) and the lowest in ages 66 and over (45.6%). Those who said it had improved accounted for the largest share in ages 26-35 (22%) and the lowest in ages 56-65 (12.9%). Those who said it had deteriorated accounted the largest share in ages 66 and over (9.9%) and the lowest in ages 56-65 (2.8%). As for the improvement, most of the respondents across all ages contributed that to diversity

of TV programs, except in ages 16-25 and ages 36-45, where most respondents contributed that to interesting or entertaining programs (40.6%) and up-to-date content (24.9%) respectively. As for the deterioration, most of the respondents in all ages contributed that to overly frequent reruns, except in 36-45, where most respondents (34.6%) contributed that to too many political talk shows. Ages 16-25, 26-35 and 56-65 were excluded from the analysis due to the small sample size.

When broken down by marital status, most of the respondents across all marital statuses said the quality of television programs had remained the same, with the highest ratio in the divorced / separated (72.7%) and the lowest in the widowed (27.6%). Those who said the quality had improved accounted for the largest share in the widowed (25.9%) and the smallest in the married (15.1%). Those who said the quality had deteriorated accounted for the largest share in the divorced / separated (11.7%) and represented the smallest in the married widowed (0%). As for the improvement, most of the unmarried contributed that to diversity of TV programs (18.8%) and interesting or entertaining TV programs (18.8%); most of the married (20.1%) contributed that to diversity of TV programs, and all of the widowed replied “I Don’t Know” (100%), with the divorced / separated excluded from the analysis due to the small sample size. As for the deterioration, most of the unmarried (61.9%) and the married (52.5%) contributed that to overly frequent reruns, with the divorced / separated and the widowed excluded from the analysis due to the small sample size.

### **(3) Analysis on differences in social and economic status**

The Chi-square test suggests that one’s perception on the quality of TV programs during the past 12 months varied greatly with education level and monthly income.

When broken down by education level, most respondents in all education levels said the quality of TV programs had remained the same during the past 12 months, with the highest ratio seen in bachelor’s degree holders (71.3%) and the lowest in those with elementary education and below (32.7%).

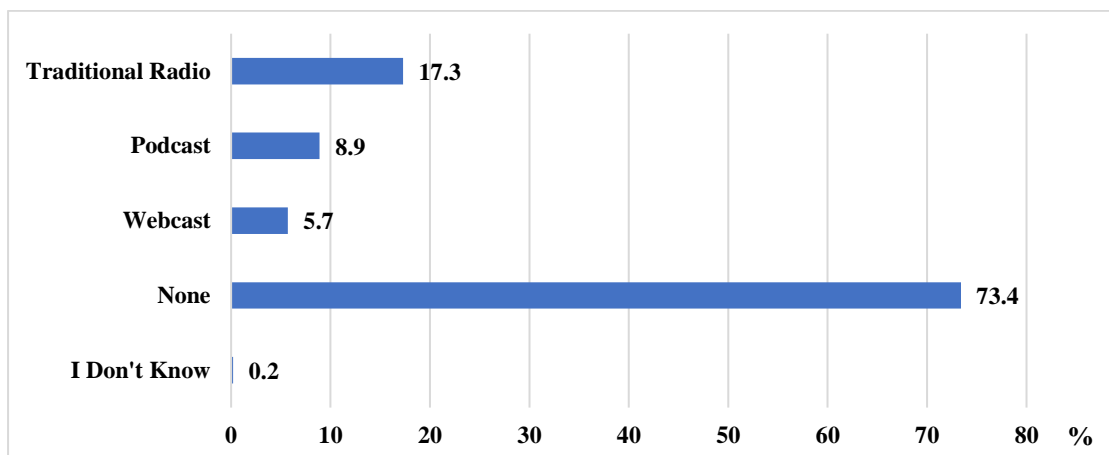
When broken down by monthly income, most respondents across all income levels said the quality of TV programs had remained the same over the past 12 months, with the highest ratio in those earning NT40,000-49,999 (77.2%) and the lowest in those earning NT10,000-19,999 (49.9%). In addition, those who answered the quality had deteriorated accounted for a higher ratio (16.3%) in those earning NT10,000-19,999 than in the rest.

## VI. Radio

### i. Radio and Podcasts Q28Q29

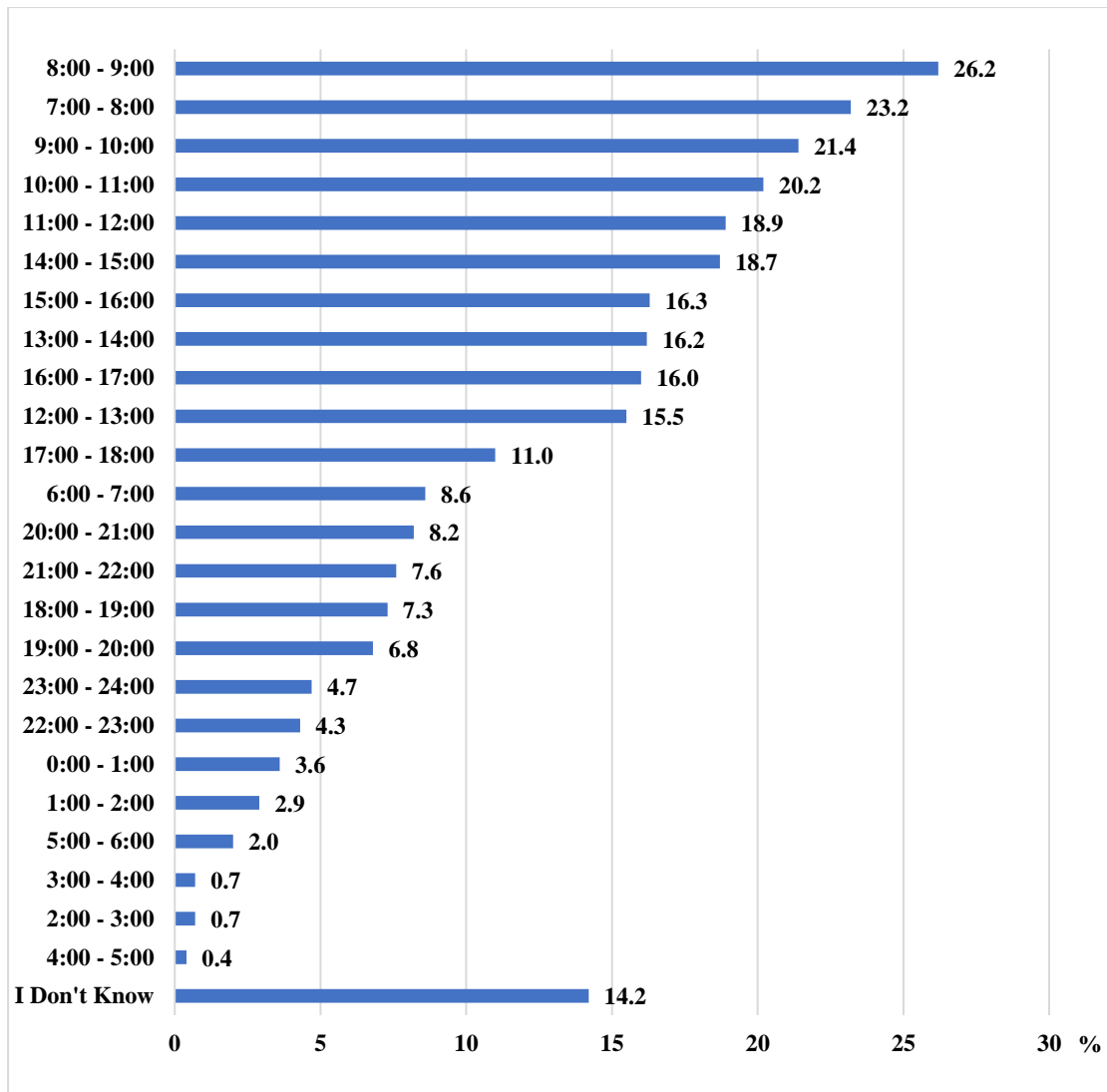
#### 1. Overall analysis

The majority (73.4%) of the respondents do not listen to traditional radio, webcasts or podcasts, with 17.3% listening to traditional radio, 8.9% listening to podcasts, and 5.7% listening to webcasts (Figure 9). In terms of time slots, most of the surveyed listen to the radio during 08:00-09:00 (26.2%), followed by 07:00-08:00 (23.2%) and 09:00-10:00 (21.4%), indicating 07:00-10:00 is prime time for radio in Taiwan (Figure 20).



Base: N=1,284, multiple answers allowed

**Figure 19 Traditional Radio, Webcasts and Podcasts**



Base: N=338, multiple answers allowed (Those who listen to traditional radio, webcast, and podcast)

**Figure 20 Most Popular Time slots for Listening to Traditional Radio, Webcasts and Podcasts**

## 2. Comparative analysis

### (1) Analysis on regional differences

The cross analysis suggests that most of the surveyed in all areas do not listen to traditional radio, webcasts or podcasts, with the highest ratio seen in Yilan, Hualien, and Taitung (77.7%) and the lowest in Taipei City, New Taipei City, and Keelung (70.7%); those who listen to traditional radio accounted for the largest share in Kaohsiung, Pingtung, and Penghu (20.2%) and the lowest in Yunlin, Chiayi, and Tainan (12.2%); those who listen to podcasts accounted for the largest share in Taipei City, New Taipei City, and Keelung (12.1%) and the lowest in Yilan, Hualien, and Taitung



(4.3%); those who listen to webcast accounted for the largest share in Yilan, Hualien, and Taitung (8.2%) and the lowest in Kaohsiung, Pingtung, and Penghu (3.4%). In terms of time slots, most of those surveyed in Taipei City, New Taipei City, and Keelung (29.1%), Taichung, Changhua, and Nantou (34.7%), and Yunlin, Chiayi, and Tainan (21.3%) listen to traditional radio, webcast or podcasts during 08:00-09:00, most of the surveyed in Taoyuan, Hsinchu, and Miaoli (28.7%) and Kaohsiung, Pingtung, and Penghu (24.4%) listen to the radio during 09:00-10:00, and most of the surveyed in Yilan, Hualien, and Taitung (33.1%) listen during 07:00-08:00.

## **(2) Analysis on basic differences**

When broken down by sex, most male (72.3%) and female (74.4%) respondents do not listen to traditional radio, webcasts or podcasts, with traditional radio listeners accounting for a higher percentage in males (19.8%) than in females (14.8%); podcast and webcast listeners represented 10.3% and 6.1% in females respectively, both higher than the ratios, 7.4% and 5.4%, in males. In terms of time slots, most males (29.5%) and females (22.7%) listen to traditional radio, webcasts or podcasts during 09:00-10:00.

When broken down by age, most of the surveyed in all ages do not listen to traditional radio, webcasts or podcasts, with the highest ratio seen in ages 66 and over (86%) and the lowest in ages 36-45 (65.7%). Those who listen to traditional radio accounted for the largest share in ages 46-55 (23.82%) and the lowest in ages 16-25 (10.7%); the ratio of podcast listeners decreased with age, with the largest share seen in ages 16-25 (18.2%) and the lowest in ages 66 and over (0.6%); webcast listeners accounted for a larger ratio in ages 36-45 (10%) than in others. In terms of time slots, most of ages 16-25 (25.1%) listen to traditional radio, webcasts or podcasts during 07:00-08:00, most of ages 56-65 (38.8%) listen s during 09:00-10:00, and most of the remaining during 08:00-09:00. In addition, a higher ratio of ages 66 and over listens to the radio during 20:00-21:00 than others.

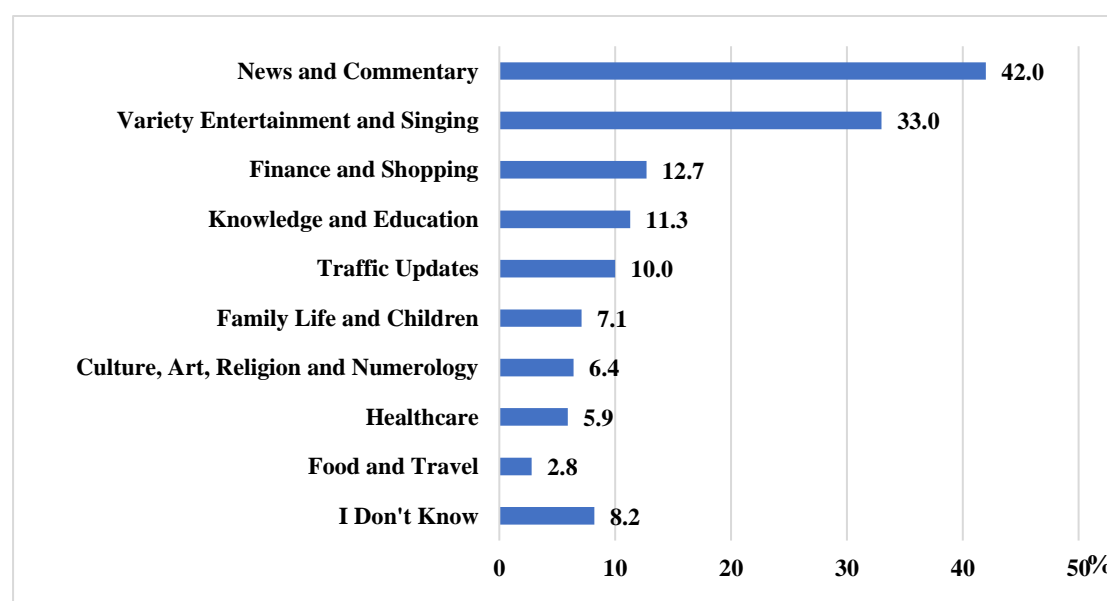
When broken down by marital status, most of the surveyed across all marital statuses do not listen to traditional radio, webcasts or podcasts, with the highest ratio seen in the widowed (95.6%) and the lowest in the divorced / separated (60.5%). Traditional radio listeners accounted for the largest share in the divorced / separated (35%) and the lowest in widowed (2.1%); podcast listeners accounted for a larger share in the unmarried (14.6%) than the others. In terms of time slots, most of the unmarried

(22%) and the married (28.3%) listen during 08:00-09:00 and most of the divorced / separated (59.7%) listen during 09:00-10:00, with the widowed excluded from the analysis due to the small sample size.

## ii. Most Listened to Radio and Podcast Programs Q30

### 1. Overall analysis

When asked about the most listened to radio, webcast or podcast programs, most of the surveyed who listen to them said news and commentary (42%), followed by variety entertainment and singing (33%), finance and shopping (12.7%) (Figure 21).



Base: N=338, multiple answers allowed (Those who listen to radio, webcast, or podcast)

**Figure 21 Most Listened to Radio, Webcasts, or Podcast Programs (Top 10)**

### 2. Comparative analysis

#### (1) Analysis on regional differences

The cross analysis suggests that when asked about the most listened to radio, webcast or podcast programs, most of the surveyed who listen to the radio across all areas answered news and commentary, with the highest ratio seen in Taipei City, New Taipei City, and Keelung (46.2%) and the lowest in Yunlin, Chiayi, and Tainan (35.5%), except in Taoyuan, Hsinchu, and Miaoli (41.8%) and Yilan, Hualien, and Taitung (50.2%), where variety entertainment and singing was the most listened to.

#### (2) Analysis on basic differences

When broken down by sex, most male (46.8%) and female (37%) respondents who listen to traditional radio, webcasts and podcasts listen to news and commentary.

When broken down by age, most radio listeners across all ages listen to news and commentary, with the highest ratio seen in ages 66 and over (51.4%) and the lowest in 36-45 (38.1%). In addition, those listening to healthcare accounted for a higher ratio in ages 66 and over (26.4%) than in the others.

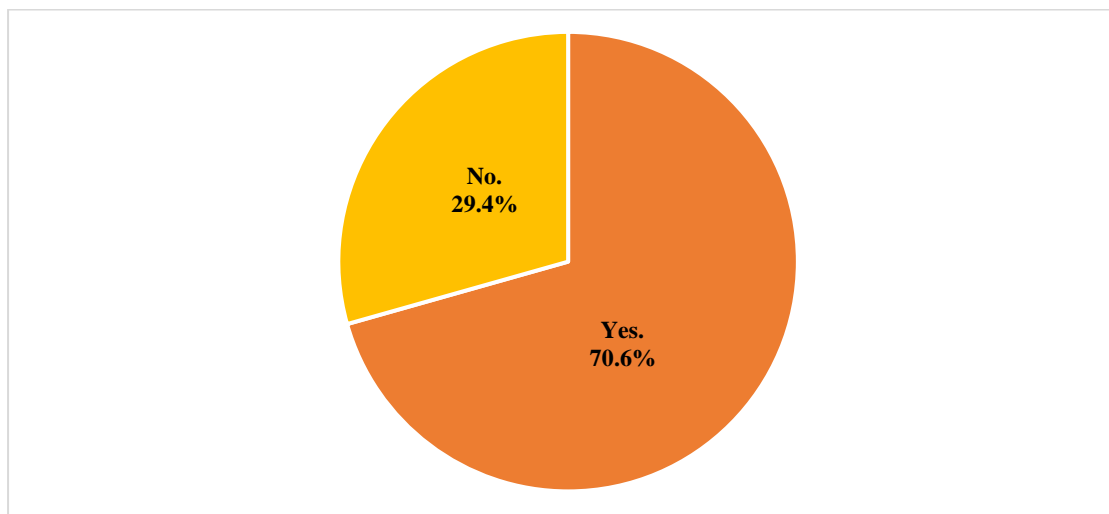
When broken down by marital status, most of the respondents across all marital statuses listen to news and commentary, with the highest ratio seen in the divorced / separated (82.6%) and the lowest in the married (39.8%).

## **VII. Product Placements and Sponsorships on Television**

### **i. Awareness of Product Placements and Sponsorships Q31**

#### **1. Overall analysis**

Seventy point six percent of the respondents said they were aware that TV programs may include product placements, sponsorships and title sponsorship, while 24.9% said they were not (Figure 22).



Base: N=994, single-choice (Those who subscribe to terrestrial television, cable TV, or CHT MOD at home)

**Figure 22 Awareness of Product Placements and Sponsorships in TV Programs**

#### **2. Comparative analysis**

##### **(1) Analysis on regional differences**

The Chi-square test suggests that one's awareness of product placements, sponsorships and title sponsorships varied greatly with area.

The cross analysis suggests that most of the respondents said they were aware TV programs may include product placements sponsorships and title sponsorships, with the highest ratio shown in Taipei City, New Taipei City, and Keelung (78%) and the lowest in Yilan, Hualien, and Taitung (62.1%).

## **(2) Analysis on basic differences**

The Chi-square test suggests that one's awareness of product placements, sponsorships in TV programs varied greatly.

When broken down by sex, most of male and female respondents said they were aware, with a ratio higher in males (72.2%) than in females (69.2%).

When broken down by age, the ratio of those who were aware that TV programs may include product placements and sponsorships decreased with age. Most of the respondents across all ages said they were aware, with the highest ratio seen in ages 26-35 (87.8%) and the lowest in ages 56-65 (61.2%), except in ages 66 and over, where the majority (57.4%) said they were unaware.

When broken down by marital status, most of the respondents in all marital statuses said they were aware it may be included, with the highest ratio seen in the unmarried (85.8%) and the lowest in the married (63.4%), except in the widowed, where the majority (68.6%) said they were unaware.

## **(3) Analysis on differences in social and economic status**

The Chi-square test suggests that one's awareness of product placements and sponsorships varied greatly with education level, profession, and monthly income.

When broken down by education level, most of the respondents across all education levels said they were aware, with the highest ratio seen in those with college education (87.9%) and the lowest in those with senior high and higher vocational education (including the first three years in junior college) (59.7%), except those with elementary education and below, where 82.1% said they were unaware.

When broken down by profession, most of the respondents in all professions said they were aware TV programs may include product placements and sponsorships, with the highest ratio seen in those in the publication, audio-video production, mass communications, and information and communications industries (100%) and the art / entertainment and recreation industries (100%), except those in the manufacturing industry and housekeepers, where the majority (64.4% and 56.9% respectively) said

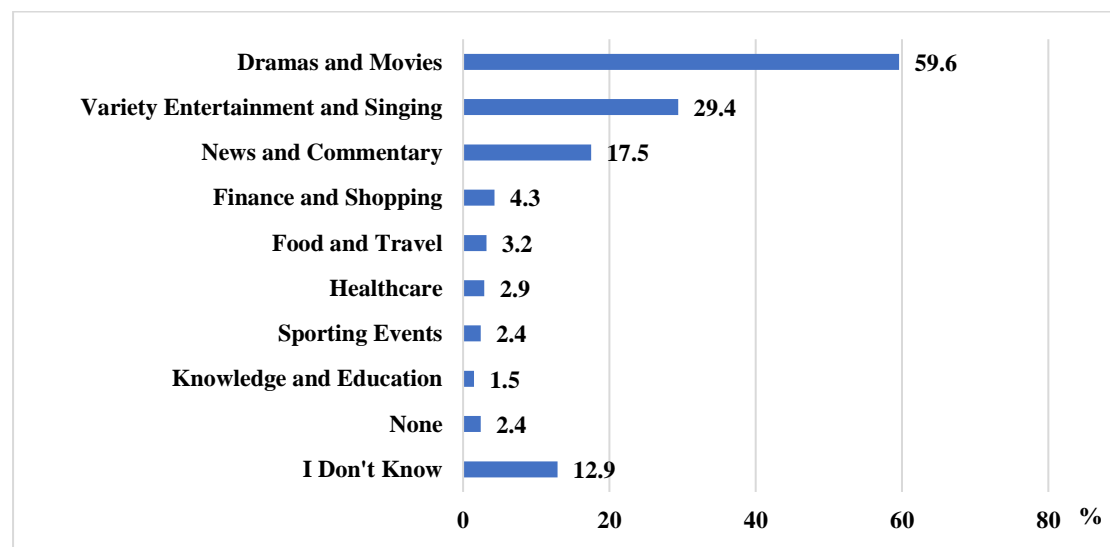
they were unaware.

When broken down by monthly income, most of the respondents across all income levels said they were aware, with the highest ratio seen in those earning NT40,000-49,999 (86.1%), except those with no income (56.7%) and those earning less than NT10,000 (75.9%), where the majority (56.7% and 75.9% respectively) said they were unaware.

## ii. Source of Product Placements and Response Q33 Q34 Q35

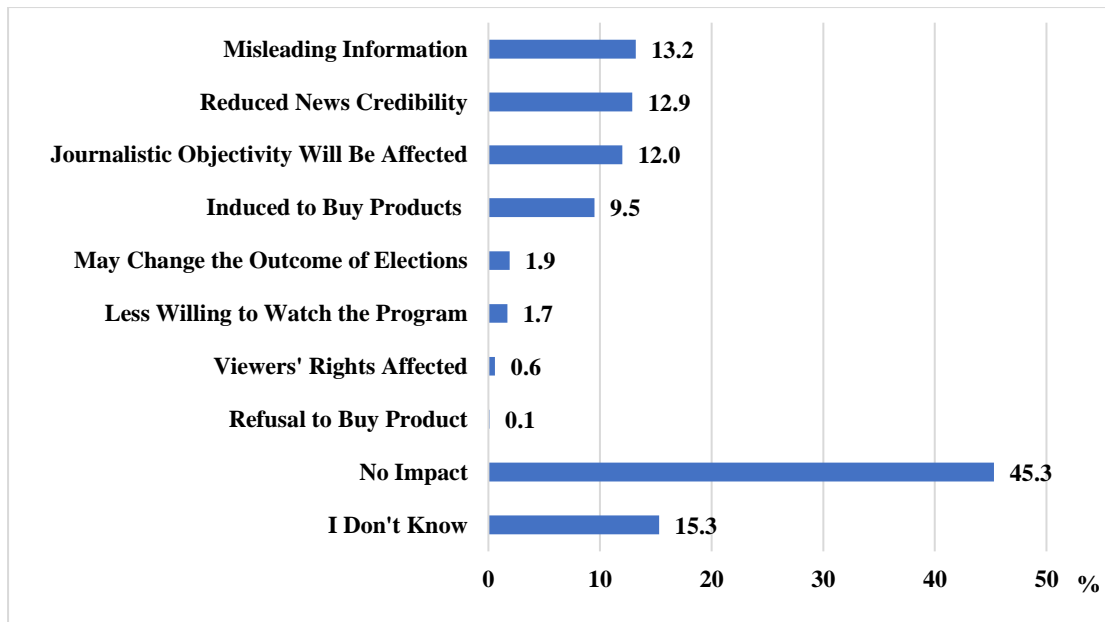
### 1. Overall analysis

When asked about where they had spotted product placements, sponsorships and title sponsorships in TV programs, the majority of those who were aware said they had been spotted in dramas and movies (59.6%), followed by variety entertainment and singing (29.4%), news and commentary (17.5%) (Figure 23). When asked about the impact of product placements included in news and commentary, most (45.3%) the respondents said no impact, followed by misleading information (13.2%), and reduced news credibility (12.9%) (Figure 24).



Base: N=594, multiple answers allowed (Those who can identify product placements, sponsorships, and title sponsorships)

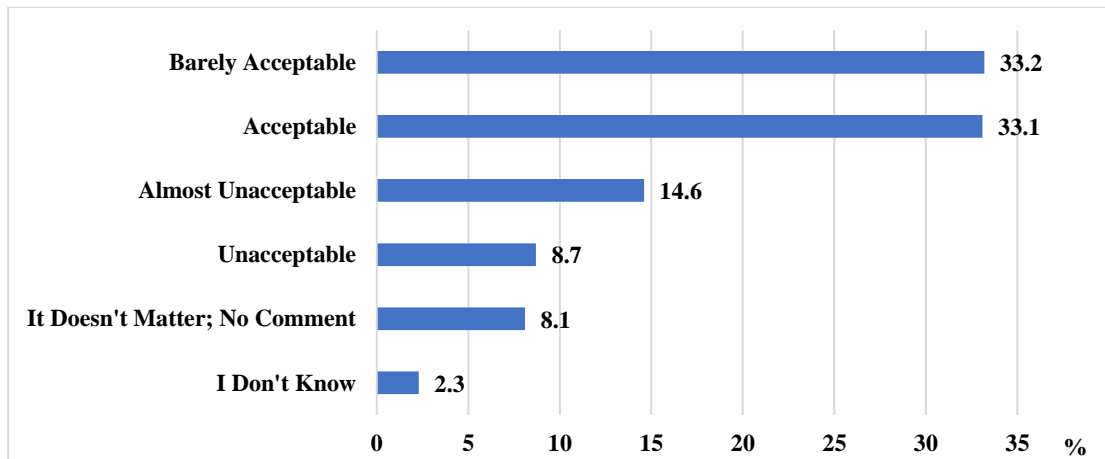
**Figure 23 TV Programs with Product Placements and Sponsorships (Top 10)**



Base: N=702, multiple answers allowed (Those who are aware TV programs may include product placements, sponsorships, and title sponsorships)

**Figure 24 Impact of Product Placements on News and Commentary**

When it comes to the acceptance of product placements, sponsorships and title sponsorships, 33.2% of the surveyed said it was barely acceptable, 33.1% said it was acceptable, 14.6% said it was almost unacceptable, and 8.7% said it was unacceptable, indicating that over 60% approved of their inclusion (Figure 25).



Base: N=702, single-choice (Those who are aware that TV programs may include product placements, sponsorships, and title sponsorships)

**Figure 25 Acceptance of Product Placements and Sponsorships**

## 2. Comparative analysis

### (1) Analysis on regional differences

The cross analysis suggests that when asked about where they had spotted product

placements and sponsorships, the majority of the respondents across all areas answered in dramas and movies (59.6%), with the highest ratio shown in Taichung, Changhua, and Nantou (68.4%) and the lowest in Yilan, Hualien, and Taitung (49.6%). As for the impact of product placements on news and commentary, most of the respondents in all areas replied negatively, with the highest ratio seen in Taoyuan, Hsinchu, and Miaoli (51.7%) and the lowest in Taichung, Changhua, and Nantou (31.3%). In terms of the acceptance of product placements and sponsorships, most respondents in Taoyuan, Hsinchu, and Miaoli (51.7%), Taichung, Changhua, and Nantou (41.1%), and Kaohsiung, Pingtung, and Penghu (32.8%) replied that they thought it was acceptable with most of those in Taipei City, New Taipei City, and Keelung (37.4%), Yunlin, Chiayi, and Tainan (36.1%), and Yilan, Hualien, and Taitung (30.5%) replied that it was barely acceptable.

## **(2) Analysis on basic differences**

The Chi-square test suggests that one's attitude toward product placements, sponsorships and title sponsorships in TV programs varied greatly with age.

When broken down by sex, most of male (55.5) and female (64.1%) respondents said they had spotted product placements, sponsorships, and title sponsorships in dramas and movies. As for the impact of product placement on news and commentary, most of the surveyed in both sexes replied negatively, with a slightly higher ratio in males (46.6%) than in females (44.1%). In terms of the acceptance of product placement, most of male respondents (35.2%) said it was acceptable; while most of female respondents (37.2%) said it was barely acceptable.

When broken down by age, the majority of the respondents across all ages said they had spotted product placements, sponsorships and title sponsorships in dramas and movies (59.6%), with the highest ratio shown in ages 26-35 (73.2%) and the lowest in ages 66 and over (32.7%). As for the impact of product placement on news and commentary, the majority of the respondents in all ages replied negatively, with the highest ratio shown in ages 46-55 (55.1%) and the lowest in ages 56-65 (32.7%). In terms of their acceptance, the ratio of those who approve decreased with age, with those approving accounting for the highest ratio (40.8%) and those disapproving accounting for 0% in ages 16-25; those approving accounted for the largest share, 28%, and those who were disapproving accounted for 12% in ages 66 and over.

When broken down by marital status, the majority of the respondents in all marital

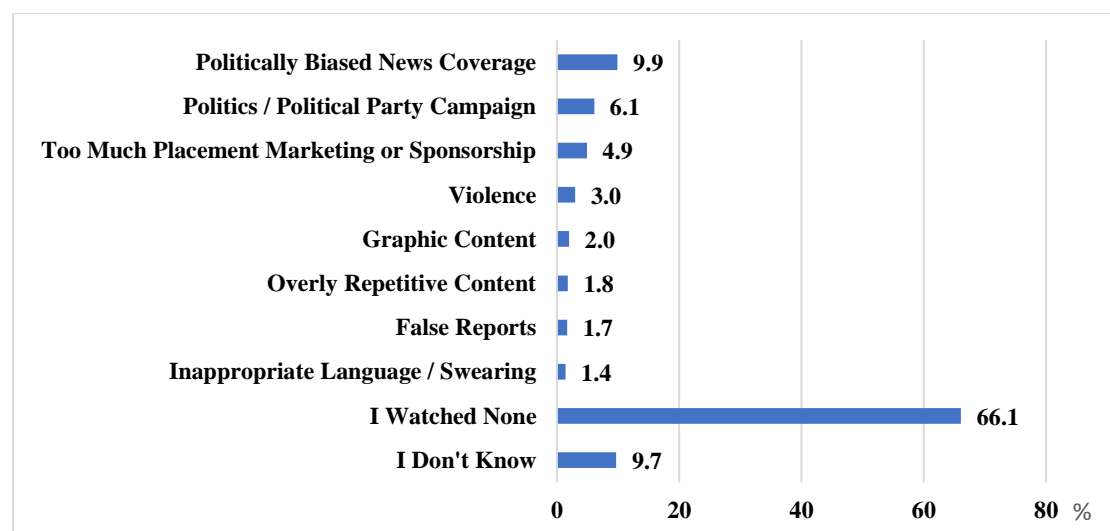
statuses said they had spotted product placements and sponsorships in dramas and movies, with the highest ratio shown in the unmarried (64.1%) and the lowest in the divorced / separated (39.4%). Samples in the widowed were not included in the analysis due to the small size. As for the impact of product placements included in news and commentary, the majority of the respondents in all marital statuses replied negatively, with the highest ratio shown in the unmarried (48.2%) and the lowest in the divorced / separated (20.6%). In terms of their acceptance, those accepting accounted for the largest share in the married (30.9%); while those who disapprove accounted for the largest share in the rest.

## VIII. Perception of Radio and Television Content

### i. Offensive or Inappropriate Content on Television Q37 Q38

#### 1. Overall analysis

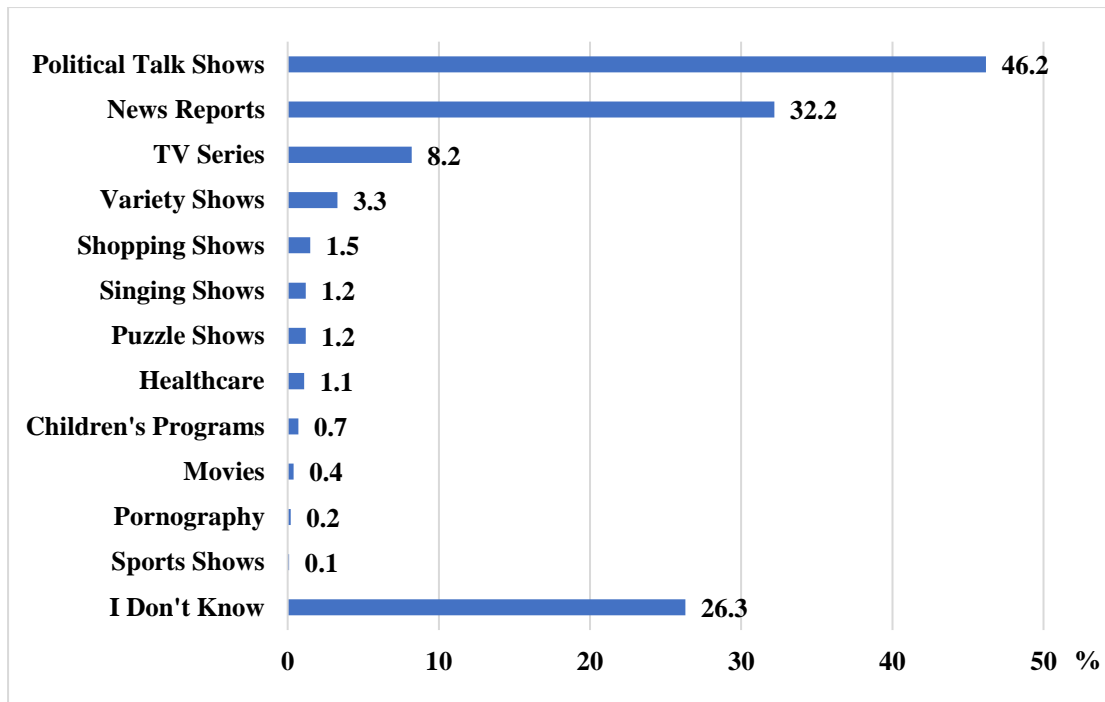
When asked what offensive or inappropriate content they had viewed on television (including terrestrial television, cable TV, and CHT MOD) over the past 12 months, most (66.1%) of the surveyed responded that they had viewed none, followed by politically biased news coverage (9.9%), politics / political party campaign (6.1%) (Figure 26). As for the TV programs they found offensive or inappropriate, most of the surveyed said “Political Talk Shows” (46.2%), followed by “News Reports” (32.2%) (Figure 27).



Base: N=994, multiple answers allowed (Those who subscribe to terrestrial television, cable TV, or CHT MOD)

**Figure 26**      **Offensive or Inappropriate Content on Television over the past 12 Months (Top 10)**





Base: N=240, multiple answers allowed (Those who watched offensive or inappropriate content over the past 12 months)

**Figure 27 Programs Found Offensive or Annoying**

## **2. Comparative analysis**

### **(1) Analysis on regional differences**

The cross analysis suggests that when asked what offensive or inappropriate content they had seen on television during the past 12 months, most of the surveyed said they had viewed none, with the highest ratio seen in Taichung, Changhua, and Nantou (73.1%) and the lowest in Yunlin, Chiayi, and Tainan (53%). Politics / political party campaign answers accounted for a higher ratio (14.7%) in Yunlin, Chiayi, and Tainan than others. As for TV programs they found offensive or inappropriate, most of the surveyed across all areas said “Political Talk Shows” (46.2%), with the highest ratio seen in Yilan, Hualien, and Taitung (60.1%) and the lowest in Yunlin, Chiayi, and Tainan (44.1%), except in Taoyuan, Hsinchu, and Miaoli, where “News Reports” answers accounted for the largest share (36%).

### **(2) Analysis on basic differences**

When broken down by sex, most male (65.9%) and female (66.3%) respondents said they had not seen any offensive or inappropriate content on television. And, most male (50.9%) and female (40.9%) respondents said they had viewed offensive or inappropriate content in “Political Talk Shows.”

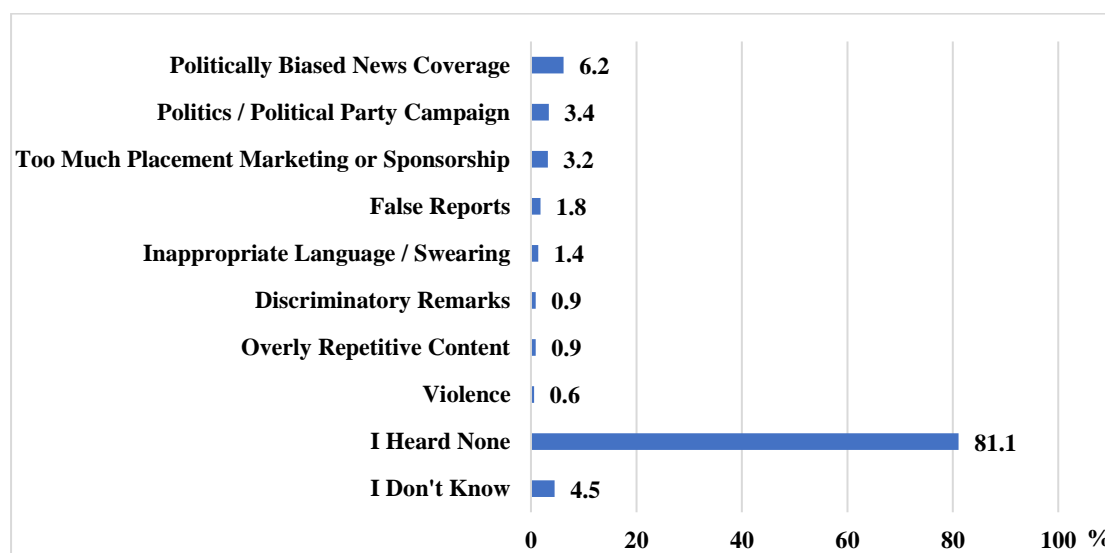
When broken down by age, most of the surveyed said they had seen no offensive or inappropriate content on television over the past 12 months, with the highest ratio shown in ages 26-35 (82%) and the lowest in ages 56-65 (52.8%). When asked about the TV shows they found offensive or inappropriate, most of the surveyed across all ages said “Political Talk Shows,” with the highest ratio shown in ages 46-55 (55.9%) and the lowest in ages 16-25 (25.5%). Those who answered “Variety Shows” accounted for a higher ratio (19.3%) in ages 16-25 than in the rest.

When broken down by marital status, most of the surveyed had seen no offensive or inappropriate content on television over the past 12 months, with the highest ratio shown in the unmarried (73.2%) and the lowest in the divorced / separated (42.5%). When asked about the TV programs they found offensive or inappropriate, most of the surveyed across all ages replied “Political Talk Shows,” with the highest ratio shown in the divorced / separated (84.8%) and the lowest in the unmarried (37.6%). The widowed were excluded from the analysis due to the small sample size.

## ii. Offensive or Inappropriate Content on Radio Q39

### 1. Overall analysis

When asked what offensive or inappropriate content they had listened on traditional radio, webcasts, or podcasts over the past 12 months, most (81.1%) of the surveyed replied they had heard none, followed by “Politically Biased News Coverage” (6.2%), and “Politics / Political party campaign” (3.4%) (Figure 28).



Base: N=338, multiple answers allowed (Those who listen to traditional radio, webcast, or podcast)

**Figure 28**      **Offensive or Inappropriate Content Heard on Traditional Radio, Webcasts, or Podcasts over the past 12 Months (Top 10)**

## **2. Comparative analysis**

### **(1) Analysis on regional differences**

The cross analysis suggests that when asked what offensive or inappropriate content they had heard on traditional radio, webcasts, or podcasts over the past 12 months, most (81.1%) of the surveyed in all areas said none, with the highest ratio seen in Taipei City, New Taipei City, and Keelung (88.5%) and the lowest in Yilan, Hualien, and Taitung (55.4%). “Politically Biased News Coverage” answers accounted for a higher ratio (30.7%) in Yilan, Hualien, and Taitung than in other areas.

### **(2) Analysis on basic differences**

When broken down by sex, most male (77.9%) and female (84.4%) respondents said they had heard no offensive or inappropriate content on traditional radio, webcasts, or podcasts.

When broken down by age, most of the surveyed across all ages answered they had heard none, with the highest ratio seen in ages 16-25 (91.9%) and the lowest in ages 66 and over (49%). “Politically Biased News Coverage” answers accounted for a higher ratio in ages 56-65 (14.4%) than others; while “Politics / Political party campaign” answers represented a higher ratio in ages 66 and over (11.8%) than in the others.

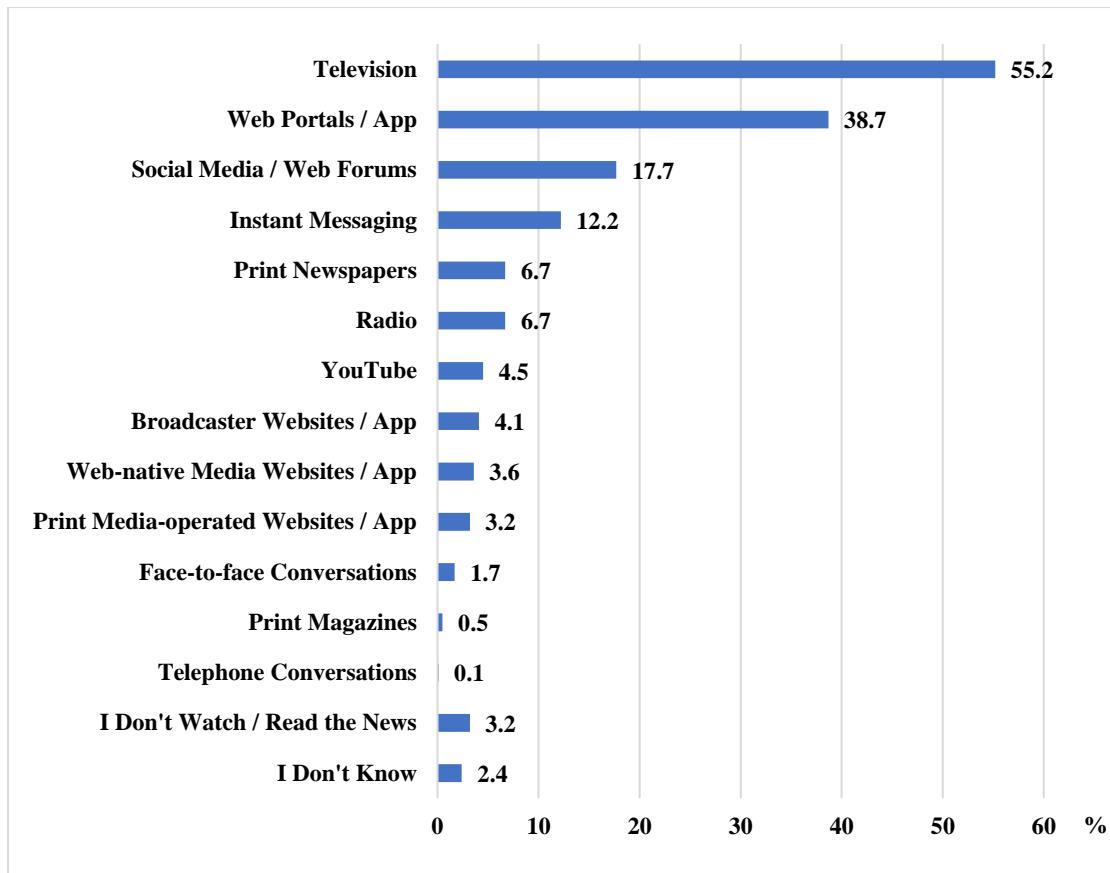
When broken down by marital status, most of the surveyed across all marital statuses said they had heard no offensive or inappropriate content, with the highest ratio seen in the divorced / separated (91.6%) and the lowest in the married (77%). The widowed were excluded from the analysis due to the small sample size.

## **IX. News Sources**

### **i. Main Sources of News Q40**

#### **1. Overall analysis**

When asked about the main source of news, most respondents (55.2%) said television, followed by web portals / apps (e.g. Yahoo, Google, LINE TODAY) (38.7%), and social media / online forum (e.g. Facebook, PTT, Dcard) (17.7%) (Figure 29).



Base: N=1,284, multiple answers allowed

**Figure 29 Main Sources of News**

## 2. Comparative analysis

### (1) Analysis on regional differences

The cross analysis suggests that most respondents in all areas said television was their main source of news, with the highest ratio seen in Yilan, Hualien, and Taitung (60.8%) and the lowest in Taipei City, New Taipei City, and Keelung (52%). Those who answered radio as their main source of news accounted for a higher ratio in Yilan, Hualien, and Taitung (13.8%) than in other areas.

### (2) Analysis on basic differences

When broken down by sex, most male (53.7%) and female (56.7%) respondents said their main source of news was television.

When broken down by age, most respondents in all ages said their main source of news was television, with the highest ratio shown in ages 66 and over (74.6%) and the lowest in ages 36-45 (49.6%), except in ages 16-25 (51.3%) and ages 26-35 (45.2%), where web portals / apps accounted for the largest share. In addition, social media / online forums answers accounted for higher ratios in ages 16-25 (33%) and ages 26-35

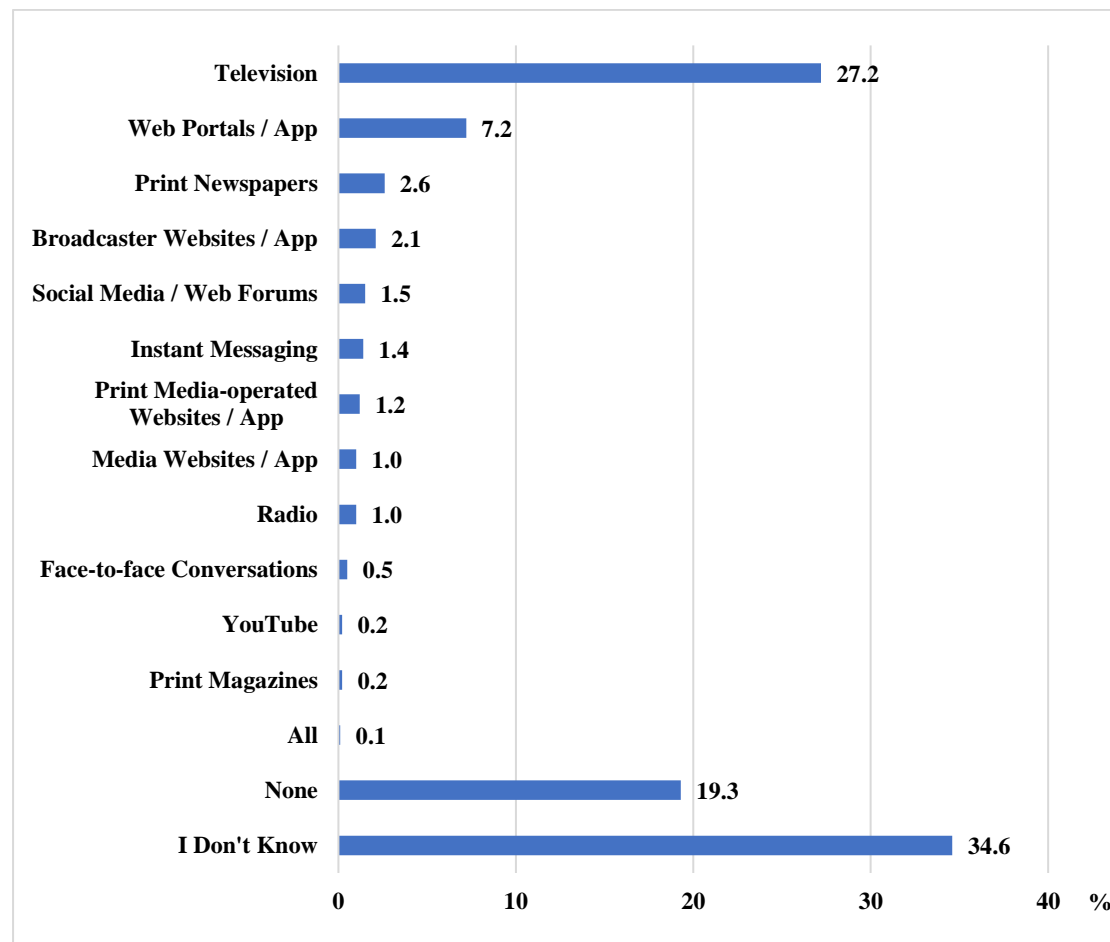
(31.1%) than in others, and print newspaper answers accounted for a higher ratio (15.8%) in ages 66 and over than in the rest.

When broken down by marital status, most respondents across all marital statuses said their main source of news was television, with the highest ratio shown in the widowed (86.7%) and the lowest in the married (61.8%), except in the unmarried, where web portals / apps answers accounted for the largest share (48.8%).

## ii. Accuracy and Impartiality of News Q41Q42

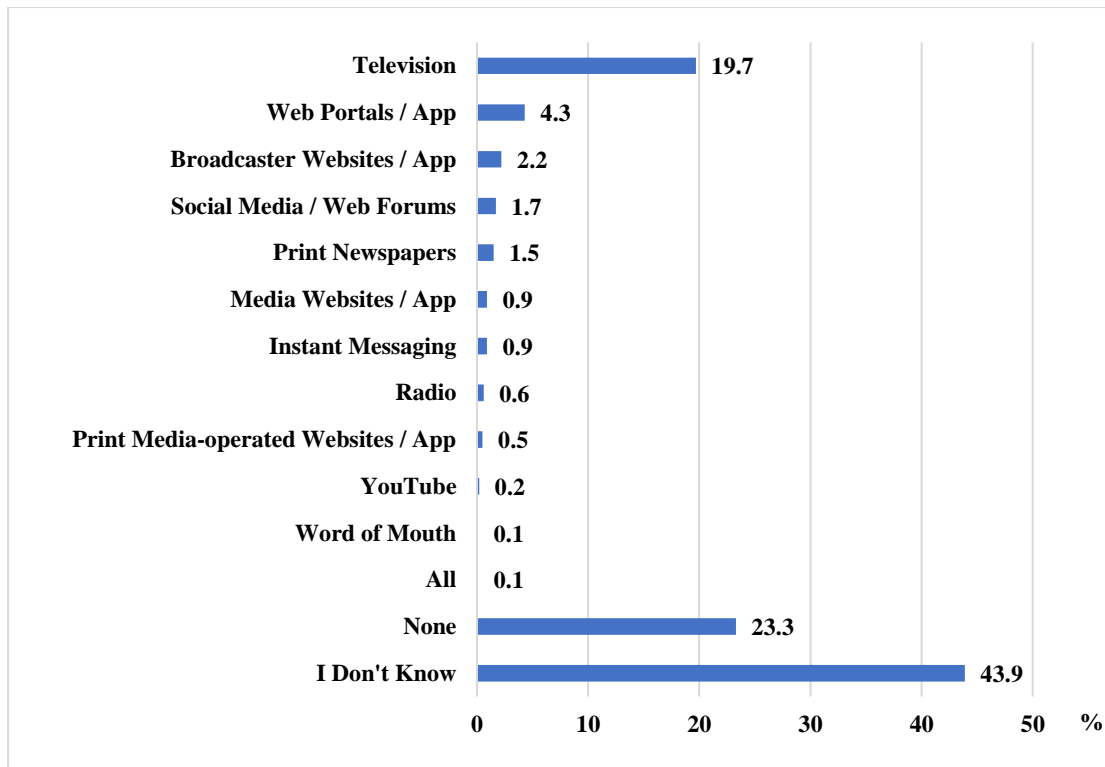
### 1. Overall analysis

When asked about the most accurate news source, most respondents (27.2%) answered television, followed by web portals / apps (7.2%), with 19.3% saying none (Figure 30). When it comes to the most impartial news sources, 19.7% answered television, followed by web portals / apps (4.3%), with 23.3% saying none (Figure 31).



Base: N=1,284, single-choice

**Figure 30 Most Accurate News Sources**



Base: N=1,284, single-choice

**Figure 31 Most Impartial News Sources**

## 2. Comparative analysis

### (1) Analysis on regional differences

The cross analysis suggests that when asked about the most accurate news source, most respondents answered television, with the highest ratio shown in Yunlin, Chiayi, and Tainan (32.5%) and the lowest in Taipei City, New Taipei City, and Keelung (26.2%), except in Taoyuan, Hsinchu, and Miaoli, where “None” answers accounted for the largest share (24.5%). When it comes to the most impartial news source, the answer television represented the largest shares in Taoyuan, Hsinchu, and Miaoli (23.8%), Yunlin, Chiayi, and Tainan (20.4%), and Yilan, Hualien, Taitung (22.3%); while the answer “None” was the most common in Taipei City, New Taipei City, and Keelung (26.8%), Taichung, Changhua, and Nantou (22.8%), and Kaohsiung, Pingtung, and Penghu (26%).

### (2) Analysis on basic differences

When broken down by sex, most male (25.3%) and female (29.1%) respondents said television was the most accurate news source; while most male (24.5%) and female (22.2%) respondents said there was no impartial news source.

When broken down by age, most respondents in ages 16-25 (22.3%), ages 26-35 (25%), and ages 36-45 (28.8%) said there was no accurate news source; most respondents in ages 46-55 (36.4%), ages 56-65 (33.6%), and ages 66 and over (24.3%) said television was the most accurate news source. As for the most impartial news source, most respondents in all ages said there was no fair news source, except in ages 56-65 (23%) and ages 66 and over (13.8%), where television was the most common answer. In addition, web portals / apps answers constituted a higher ratio in ages 16-25 (10%) than in the rest.

When broken down by marital status, most respondents in the unmarried (24.5%) and the divorced / separated (28%) said there was no accurate news source; while the answer television was the most popular in the married (30.5%) and the widowed (19%). As for the most impartial news source, most respondents in all marital statuses said there was no impartial news source, except in the divorced / separated (25%), where television was the most common answer.

### **iii. Frequency of Fake News / Disinformation and Response**

#### **Q43Q44**

##### **1. Overall analysis**

When asked about verifying disinformation, most (23.6%) respondents said “by Knowledge and Experience,” followed by “by Looking for Relevant Information” (21.5%). The answer “I Don’t Verify Disinformation” represented 21.4% (Figure 32). In terms of the frequency of fake news, most (57.6%) answered “Seldom,” followed by the answer “Often (including always and often)” (33.5%), with the answer “Never” accounting for 4.1% (Table 9).



Base: N=1,212, multiple answers allowed (Those who read news)

**Figure 32 Verifying Disinformation**

**Table 9 Frequency of Disinformation**

Unit: %

Frequency of Fake News	Frequency				
	Frequent		Seldom	Never	I Don't Know
	Always	Often			
	8.2	25.3	57.6	4.1	4.7

Base: N=853, single-choice (Those who know how to check fake news)

Source: Results from this research

## 2. Comparative analysis

### (1) Analysis on regional differences

The Chi-square test suggests that the frequency of fake news varied greatly with area.

The cross analysis suggests that most respondents in Taipei City, New Taipei City, and Keelung (25.6%) and Taichung, Changhua, and Nantou (24.7%) said they verify fake news by knowledge and experience; most respondents in Taoyuan, Hsinchu, and Miaoli (27%), and Yilan, Hualien, and Taitung (27.5%) said they do it “By Looking for Relevant Information;” while most respondents in Yunlin, Chiayi, and Tainan (22.6%) and Kaohsiung, Pingtung, and Penghu (29.8%) answered “I Don't Know How.” Most respondents in all areas said they seldom see fake news, with the highest ratio seen in



Yunlin, Chiayi, and Tainan (63.1%) and the lowest in Kaohsiung, Pingtung, and Penghu (52.5%). In addition, those who said they frequently see fake news accounted for a higher ratio (40.3%) in Kaohsiung, Pingtung, and Penghu than in other areas.

## **(2) Analysis on basic differences**

The Chi-square test suggests that the frequency spotting fake news varied greatly with age.

When broken down by sex, most male respondents (29.5%) said they verify fake news by their knowledge and experience; while most female respondents (25.1%) said they do not know how. Among those who said they know how to verify fake news, most males (51.6%) and females (65%) said they seldom spot fake news.

When broken down by age, most respondents in ages 16-25 (38.2%), ages 26-35 (31.8%), and ages 36-45 (22.7%) said they verify fake news “By Looking for Relevant Information,” most respondents in ages 46-55 (27.6%) said they do it “By Knowledge and Experience,” and most respondents in ages 56-65 (32.6%) and ages 66 and over (30.3%) said “I Don't Know How.” Most respondents across all ages said they seldom see fake news, with the highest ratio seen in ages 16-25 (65.7%) and the lowest in ages 66 and over (51.4%).

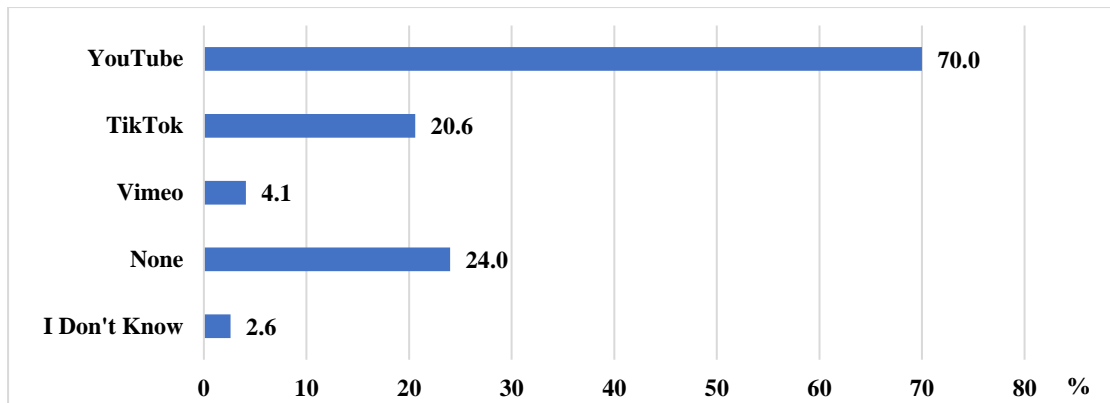
When broken down by marital status, most respondents in the unmarried (32.3%) said they verify fake news “By Looking for Relevant Information,” most respondents in the divorced / separated (31.8%) answered “By Knowledge and Experience”, and most respondents in the married (25.4%) and the widowed (36.7%) said “I Don't Know How.” Among those who said they know how to verify fake news, most respondents in the unmarried (59%) and the married (58%) said they seldom see fake news and over half of respondents in the divorced / separated (55.5%) said they frequently see fake news. The widowed were excluded from the analysis due to the small sample size.

## **X. Video Sharing Platforms**

### **i. Viewing Videos on Video Sharing Websites Q46 Q47**

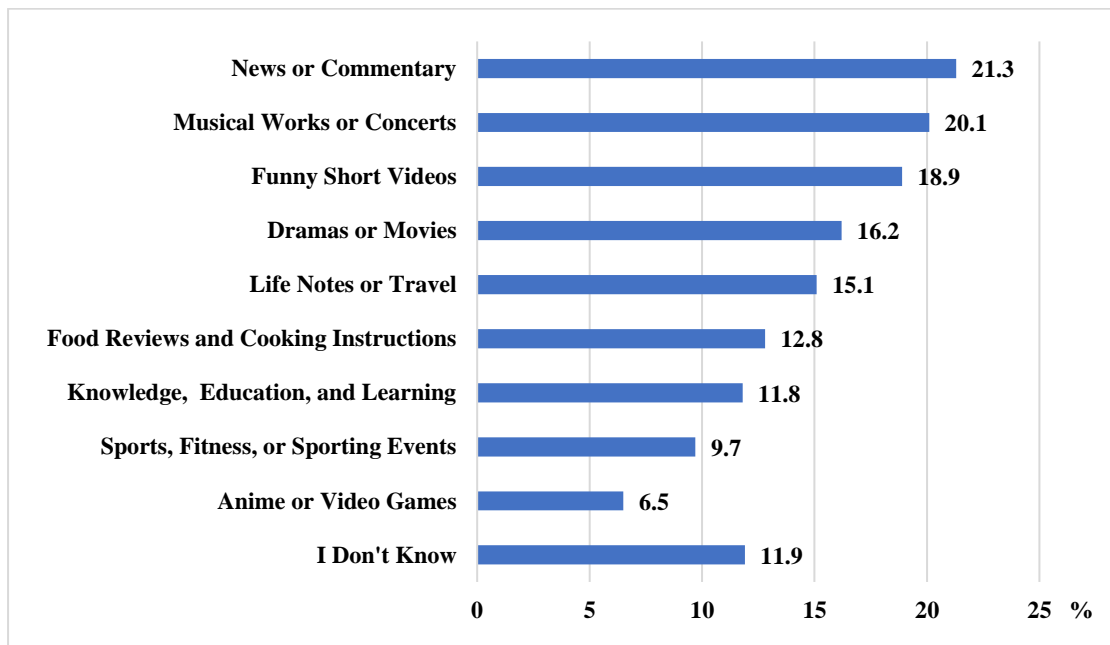
#### **1. Overall analysis**

When asked about the video sharing platforms where they had viewed videos, most respondents (approximately 70%) said YouTube, followed by TikTok (20.6%), Vimeo (4.1%), with the answer “None” accounting for 24% (Figure 33). As for the type of videos, most respondents (21.3%) replied news and commentary, followed by musical works or concerts (20.1%), and funny short videos (18.9%) (Figure 34).



Base: N=1,284, multiple answers allowed

**Figure 33 Video Sharing Platforms**



Base: N=943, multiple answers allowed (Those who have watched videos on video sharing platforms)

**Figure 34 Type of Videos Viewed on Video Sharing Platforms (Top 10)**

## 2. Comparative analysis

### (1) Analysis on regional differences

The cross analysis suggests that when asked about the video sharing platforms they had viewed videos, most respondents in all areas said YouTube, with the highest ratio shown in Taipei City, New Taipei City, and Keelung (78.4%) and the lowest in Yilan, Hualien, and Taitung (57.6%). As for the type of videos viewed, most respondents in Taipei City, New Taipei City, and Keelung (21%) and Yunlin, Chiayi, and Tainan (20.5%) said musical works and concerts, with news and commentary

answers accounting for the highest ratios in Taoyuan, Hsinchu, and Miaoli (27.8%) and Kaohsiung, Pingtung, and Penghu (21.9%) and dramas and movies answers accounting for the highest ratio in Taichung, Changhua, and Nantou (19.5%).

## **(2) Analysis on basic differences**

When broken down by sex, most male (74%) and female (66.2%) respondents said they had viewed videos on YouTube. Most male (27.4%) respondents said they had watched news and commentary; while most female (19.8%) respondents said they had viewed musical works and concerts.

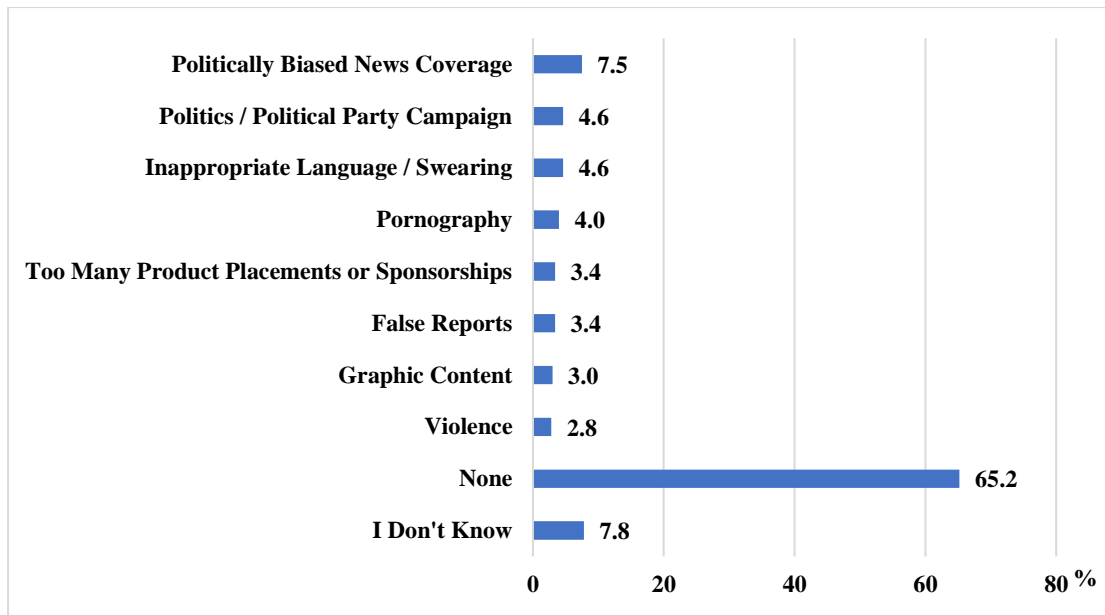
When broken down by age, most respondents across all ages said they had watched videos on YouTube, with the ratio decreasing with age and the highest ratio found in ages 16-25 (94%) and the lowest in ages 56-65 (52.1%), except in ages 66 and over (58.1%), where most respondents said they had not watched videos on video sharing platforms. As for the type of videos viewed, musical works and concerts was the most common answer in ages 16-25 (28.4%) and ages 36-45 (22.2%); funny short videos answers accounted for the highest ratio in ages 26-35 (24%); news and commentary answers represented the highest ratio in ages 46-55 (31.2%) and ages 56-65 (22.6%); while dramas and movies was the most popular in ages 66 and over (17.8%).

When broken down by marital status, most respondents across all marital statuses said they had watched videos on YouTube, with the highest ratio found in the unmarried (88.2%) and the lowest in the married (61.1%), except in the widowed, where nearly half respondents (49.4%) said they had not watched videos on video sharing platforms. As for the type of videos watched, most respondents in the unmarried (23.6%) said they had watched musical works and concerts; most respondents in the married (20.2%) and the divorced / separated (31.4%) answered news and commentary. The widowed were excluded from the analysis due to the small sample size.

## **ii. Offensive or Inappropriate Content on Video Sharing Platforms and Response Q48**

### **1. Overall analysis**

When asked about offensive or inappropriate content viewed on video sharing platforms, most respondents (65.2%) said they had watched none, followed by politically biased news coverage (7.5%), politics / political party campaign (4.6%), and inappropriate language / Swearing (4.6%) (Figure 35).



Base: N=943, multiple answers allowed (Those who have watched videos on video sharing platforms)

**Figure 35      Offensive or Inappropriate Content Seen on Video Sharing Platforms (Top 10)**

## **2. Comparative analysis**

### **(1) Analysis on regional differences**

The cross analysis suggests that when asked about offensive or inappropriate content spotted on video sharing platforms, most respondents in all areas said they had watched none, with the highest ratio in Taichung, Changhua, and Nantou (70.9%) and the lowest in Yilan, Hualien, and Taitung (52.6%).

### **(2) Analysis on basic differences**

When broken down by sex, most male (66.4%) and female (64%) respondents said they had spotted no offensive or inappropriate content on video sharing platforms.

When broken down by age, most respondents in all ages said they had watched none, with the highest ratio seen in ages 26-35 (71.3%) and the lowest in ages 66 and over (51.2%), with those answering politically biased news coverage accounting for a higher ratio in ages 56-65 (14.6%) than in others.

When broken down by marital status, most respondents across all marital statuses said they had watched none, with the highest ratio seen in the unmarried (66.9%) and the lowest in the divorced / separated (50.3%). The widowed were excluded from the analysis due to the small sample size.